DOCUMENT RESUME

ED 201 645 TM 810 204

AUTHOR	Jones, Earl
TITLE	Curriculum and Instruction in an Experimental Schools Program: The Edgewood School Plan.
INSTITUTION	Development Associates, Inc., San Francisco, Calif.
SPONS AGENCY	National Inst. of Education (DHEW), Washington, D.C.
PUB DATE	Jun 77
GRANT	OEC-0-72-5309
NOTE	159p.
AVAILABLE FROM	Development Associates, 693 Sutter St., 3rd Floor, San Francisco, CA, 94102 ($12 each).
EDRS PRICE	MF01/PC07 Plus Postage.
DESCRIPTORS	*Curriculum Evaluation; Elementary Secondary Education; *Experimental Schools; Formative Evaluation; *Instructional Improvement; Longitudinal Studies; Program Design; *Program Implementation; Public School Adult Education; School Community Relationship; *Staff Development
IDENTIFIERS	Edgewood Independent School District TX

ABSTRACT

The Edgewood Independent School District in San Antonio, Texas, under the US Office of Education and later the National Institute of Education, designed and carried out a five year plan intended to modify its programs in ways that would enable its largely Mexican American students and community to profit more from the education offered. An external evaluation of those efforts was included in the overall experimental schools design. The present study, a part of that evaluation, examines the materials and processes of the implementation effort of the Edgewood Experimental Schools Project, later renamed the Edgewood School Plan. The research is mainly process oriented, describing the district's modification efforts and evaluating them, when possible, through expert analysis, teacher and participant perceptions, and relating these efforts to the changes in the affective and cognitive domains where applicable. The overall conclusion is that implementation of the program produced some measurable benefits to the youth and adults in the Edgewood community. However, it failed to produce results in the affective and cognitive areas when measured against comparison groups. (Author/RL)

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CURRICULUM AND INSTRUCTION
IN AN
EXPERIMENTAL SCHOOLS PROGRAM:
THE EDGEWOOD SCHOOL PLAN

by
Dr. Earl Jones

with the assistance of

Ms. Hercilia X. Toscano
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TM 810 204

The research reported herein was supported by grant OEC-0-72-5309 from the National Institute of Education, Experimental Schools Program, of the US Department of Health, Education, and Welfare. The opinions expressed and the conclusions drawn do not necessarily reflect the position nor policy of the National Institute of Education and no official endorsement should be inferred.

June 1977

ACKNOWLEDGMENT

Although many individuals in the school district and in the experimental program and in the treatment and comparison schools assisted measurably in the collection and analysis of the data for this study, the following were particularly helpful and their efforts, especially those during the fifth program year, when cooperation was not mandatory:

Superintendent Ruben Lopez
Associate Superintendent James R. Vasquez
Staff Development Director Jo Fuentes
Curriculum Development Director Mary Ellen Quinn
Internal Evaluation Director Gaston Pol

Additionally, Mr. David Mack, of the National Institute of Education, facilitated the collection of materials and the final interviews beyond the general contract period.

The technical readers for the manuscript added substantially to the wording and presentation of data and their assistance is sincerely appreciated:

Dr. Helen H. Bernal, Our Lady of the Lake University
Ms. Hercilia X. Toscano, Southwest Educational Development Laboratory
Mr. Howard Fleischman, Development Associates

The careful documentation accumulated during the life of the project was due to the meticulous work of many Development Associates staff members and their diligence was commendatory. The director of the San Antonio office during that period, Dr. Robert A. Cervantes, now with the California State Department of Education, provided the detailed supervision that made the interpretation of the data possible.

Ms. Jayne Wieding prepared the manuscripts for this report.

Finally, the detailed examinations and evaluations of the curricular materials were accomplished through many hours of work by the following specialists:

Ms. Hercilia X. Toscano, Bilingual Specialist, SW Lab., Austin, Texas
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Their expert input made much of the analysis possible.

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ABSTRACT

The Edgewood Independent School District in San Antonio, Texas, under the US Office of Education and later the National Institute of Education, designed and carried out a five year plan intended to modify its programs in ways that would enable its largely Mexican American students and community to profit more from the education offered. Specifically, the experimental schools program under study set out to make the curricula more relevant to the individual needs of the students and to reflect their experiences as Mexican Americans. The plan further proposed to train the teachers to properly implement the new curricula and to make them more responsive to the needs of the pupils. The entire community was defined as the "student body" of the district and special programs to help the residents achieve a better quality of life were to be instituted.

An external evaluation of those efforts was included in the overall experimental schools design. The present study, a part of that evaluation, was to examine the materials and processes of the implementation effort of the Edgewood Experimental Schools Project, later renamed the Edgewood School Plan. The research was mainly process oriented, describing the district's modification efforts and evaluating them, when possible, through expert analysis, teacher and participant perceptions, and relating these efforts to the changes in the affective and cognitive domains where applicable. Comparison groups were used to assess changes in relation to those achieved in other parts of the district.

Curricular Materials

A curriculum development component in the Edgewood School Plan was principally responsible for the production of the materials. A vast quantity was produced and most of it was implemented at least partially somewhere within the experimental schools program. Many of these materials, however, were discrete units; few were revised after initial implementation and/or incorporated into later editions. Two important exceptions to this isolated unit process were found: the mathematics program was almost continuously revised and expanded through the life of the program and the teacher guides produced the last year contained some materials from previous production or revisions thereof.

The results of the research into the curricular materials showed:

- Some improvement was needed in the physical presentation, especially in the size of print for primary pupils, and in illustration.
- Most units contained instructional objectives and these were generally stated in measurable terms; some needed improvement.

- The applicability to the grades and subjects was judged high except that some, particularly Spanish language materials, had measured readability levels too difficult for the students.
- Strong San Antonio and Texas relevancy content was found in about half the units but content on Mexican Americans, Mexicans, and other Latin Americans was rare except in some middle and high school materials.
- Teachers were generally positive about the materials during the first two years, skeptical the third, and were again positive during the fourth year; a concern about the materials being isolated units rather than building a curriculum persisted throughout the period.

Conclusions regarding the curricular materials included the need for a detailed scope and sequence curriculum as a guide to their production and revision; a continuous review process would have aided in the improvement of the materials; and measurement of the results of the use of such materials would have given important directions to the entire production and revision process.

No important differences in attitudes, self concept, and motivation were found between those students utilizing the experimental materials and those using the more traditional adopted texts. Few differences were found in academic achievement; early efforts in an integrated kindergarten program in one school, English in the high school - some differences in mathematics in the second, third, and fourth years - several nonpatterned differences in some high school subjects the fourth year. The longitudinal study of both the affective and cognitive domains found no important differences between the experimental and comparison groups' scores when viewed over the four year period studied. Since mathematics was the only area with fairly consistent improvement in achievement, the general conclusion was that the production of high quality materials, subjected to frequent revision, and implemented over a substantial amount of time, apparently offers a greater expectation of cognitive improvement than any quantity of separate, unmodified units, even if the quality of these is high.

Staff Development

The staff development component faced a difficult task since the teacher turnover rate was very high every year. Thus, sequencing the training from introduction to highly complex implementation strategies was hampered. The variability of the curricular materials, and the changes in their approaches and uses, likewise caused substantial changes in the training program.

Nevertheless, a substantial amount of training was offered, from short duration or subject sessions of a few hours to extended and indepth courses. More than 3400 teachers, principals, aides, parents, and other community members were reported to have attended some portions of the training. These participants generally rated the training as "useful," between the scale points of "undecided" and "very useful."

Since no affective differences were found in the students and few cognitive differences occurred, it would have to be said that the part staff development was to play in this total process, along with the other work involved, provided little evidence of success. This must be tempered by the realization, however, that the changes instituted in the implementation during the years, plus the funding difficulties, made it unlikely that great measurable results could have been obtained. One set of training sequences, that related to individual instruction, although it changed classroom practices little when carried out by itself, appeared to have had an effect when the individualized materials for the implementation were provided - increases in individualization practices were found in several grades.

Instruction

An important aspect of the experimental program was the improved relationships between the teachers and the students. Measurement over the first four years showed no appreciable differences in emotional climate or teacher interpersonal styles between the experimental and comparison classrooms. Similarly, the proposed emphasis on the verbal portions of language arts instruction toward a balanced program of listening, reading, speaking, and writing skills did not result in experimental and comparison group differences. Increases in the use of Spanish in instruction and classroom management, also expected, were not evidenced; during the fourth year the comparison students spoke more Spanish at the high school and no differences were found elsewhere.

The elementary classroom practices varied little between experimental and comparison - both primarily utilized subgroups as the focus of most attention. Some small increases toward individualization were discovered in some measures of the experimental classes. The practices in the middle schools were primarily "class as a whole" oriented but the experimental school was significantly more toward open education on the selection of materials for student use. In 1976, the only year in which significant differences occurred at the high school, the experimental classes were more open than the comparison on attention to individuals and teacher as a resource person rather than a presenter of planned lessons. As a whole, then, experimental and comparison were alike during the third program year but in the fourth year some increases in the open education measures were registered for the experimental group, chiefly in the high school.

Expert teacher observations pointed out some rather serious problems in language arts instruction, especially in the teaching of Spanish. The observations found excellent implementation in middle and high school mathematics, and in middle school social studies. The experts noted a great deal of variation in the quality of the instruction but judged it, overall, as satisfactory or better.

Student perceptions of the learning environment were measured only in the fourth year. Few differences were found between the experimental and comparison groups and these were not consistently in favor of one group or the other.

Non classroom instruction for students in the experimental schools had embraced many activities during the first two and one-half years but were sharply curtailed thereafter. Those that were conducted were judged mostly positively by the participants.

An increase in the proportion of certified teachers and teachers with the masters degree may have been associated with the general thrust of teacher preparation. A type of community college program was developed in cooperation with a local institution of higher learning and many students took beginning courses in the experimental program. Some received credit for prior learning through work experiences.

Training to prepare students to take the General Equivalency Diploma examinations was conducted one year. Studies of the perceptions of those in the experimental and comparison programs showed few important differences between them except for a somewhat higher rating on the quality of instruction in the comparison program, one that had been in existence for many years.

The alternative high school, open only to Edgewood dropouts or residents who had not completed high school, graduated 52 students the first two years and about 200 others were enrolled at the close of the investigation. The program was officially adopted by the Edgewood board of education and was to be continued the year after the experimental program closed.

Non credit training for adults occurred at intervals through the five years and included mostly short term classes or seminars. Few measures of results were attempted but the subjects appeared relevant to the projects and some individuals were later incorporated into several activities of the experimental program.

Conclusions about the implementation of the program closely paralleled those of the curricular materials:

- Frequent changes in the approaches, methods, and techniques appeared to have weakened the possibility of measurable impact on student affective or cognitive scores.
- Changes in implementation appeared difficult to achieve through training alone but seemed viable when training and materials were provided together.
- Few differences were found in implementation strategies or in the quality of instruction when the experimental and comparison groups were viewed across the four year period.

- Although somewhat speculative since they did not persist very long, it appeared that making training available to adults in more accessible sites increased the participation of adults in these.

- Although there were several avenues available for community members to obtain a high school diploma or equivalency certificate, the alternative high school program appeared to have filled a need and was utilized by the community in rather sizeable numbers.

The overall conclusion was that the implementation of the program produced some measurable benefits to the youth and adults in the Edgewood community. It failed to produce results in some critical areas, especially in the affective and cognitive areas, when measured against comparison groups. And corollary to these, it appeared reasonable to conclude that the frequent changes in implementation may have diminished the opportunities for more substantial results.

Recommendations

Practitioners were reminded that the lack of a detailed scope and sequence guide may lead to "disjointed" and tangential efforts in the production of curricular materials and their implementation. Measurement of the results of treatments is imperative if continuous progress is to be registered by a program. Further, general impressions about the functioning of treatments over a short period may be misleading and cause further production or changes when revision may be all that is necessary for increased success.

Researchers were cautioned that longitudinal research on diverse treatments applied to large audiences, especially if the treatments change frequently, calls for extreme care in designing a flexible investigation that can capture both the test score results and the implications from process. It was recommended that both elements be seen as crucial to the measurement of a program. Further, complete separation of external evaluation from the project to be studied was not recommended since important details may thus be lost, making thoroughness more difficult and cost effectiveness lower.

CHAPTER I: INTRODUCTION

The Edgewood Independent School District, San Antonio, Texas, under National Institute of Education funding as an experimental schools project, undertook modification of its educational system in order to increase the learning of its largely Mexican American student population. Changes in community participation, administration, curricula, and methodologies were proposed. During the first year of the project, 1972-1973, the district established an intervention agency, first named the Experimental Schools Project and later called the Edgewood School Plan (ESP). Six schools - four elementary, one middle, and one secondary - were chosen to participate in the program and were developed into a mini-system under an associate superintendent for the experimental program.

The basic project document, Final Plan: Experimental Schools Project (31)*, outlined the needs of the students, emphasizing a series of incompatibilities between the traditional school system and the needs and characteristics of the students. The overall goal stated that the project was to provide students with an education which focused on developing and maximizing their intellectual and social potential through educational changes and cultural reinforcement. Eight subgoals were listed (31, p. 4-5):

1. To assist the student in determining his capabilities and limitations.
2. To assist the student in recognizing the worth of others, their contributions to humanity, and their problems.
3. To assist the student in recognizing and assuming responsibilities to himself, his community, his peers, his employer.
4. To assist the student in developing basic academic skills.
5. To provide the student with a broad range of experiences upon which he will draw in determining his personal and career objectives.
6. To provide the student with factual information about his cultural heritage to increase his self awareness.
7. To develop rising aspirations in students by providing success models.
8. To provide an educational program that reflects the student's cultural, language, and economic characteristics, and is compatible with his learning style.

The theory of incompatibilities was expanded in later publications (11, 12) but followed the basic pattern established by Tannenbaum (93) in 1954: the system must be brought to reflect the reality of the clients if comprehensive and permanent changes were to be brought about.

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*The bibliography and documentation section is subdivided, for ease of scanning, into general references (1-107); curricular materials (c1-c83); Development Associates documentation (d1-d99); Edgewood School Plan documents (e1-e78).

The Organization for Academic Change

The Final Plan provided for an administrative unit to facilitate the conduct of the program. The associate superintendent of the project, also called the director, provided the general management function during the first three years and an assistant was added in the fourth year. Accounting personnel were included to handle the fiscal affairs.

Each of the schools was administered by a principal and, in addition, an assistant was provided. The principals' roles were largely traditional at the beginning of the program, including duties and responsibilities to the general administrative functioning of the district as well as those specifically called for under the experimental schools program. In 1974, the Edgewood School Plan added a dimension to the principal role, that of instructional leader. Some counseling personnel were provided to supplement those already existing in some of the plants, primarily in the middle and secondary schools.

Six major components were devised to implement the program. Within these, at various times, committees were set up to study certain problems and propose solutions to them. Often these were composed of staff members from more than one component, especially when the problem required attention from several staff specialists, not always available in any one component. Each component was headed by a director and, during much of the program's life, both central office staff and on site school liaison personnel were provided. Consultants from many institutions were called in on contract as the need arose and funds were made available.

Staff Development

The staff development component was seen as necessary because "teachers have been trained to work with White students rather than with Mexican Americans and Blacks, many students were failing to learn to read and write and often dropped out of school, the language of the teachers was English and that of the children was 'barrio' Spanish, teachers had not been trained to use the type of curriculum that would be developed, and differentiated staffing patterns would require new role definitions and behaviors for all staff." (31, pp.58-59) Teacher and paraprofessional workshops were to be conducted by the staff development component to remedy these identified problems. At various times during the five years of federal funding, other components assisted with or carried out staff development, especially curriculum, family services, and internal evaluation. Cultural advocacy and services to the handicapped staffs gave input into the staff development as needed.

Curriculum Development

The rationale provided for this component in the experimental schools project stated that: "Typical curriculum has been guilty of two sins: by its exclusivity, it leads to the inference that White, middle class values are the only ones acceptable and by focusing on content oriented pedagogy, students are severely handicapped by their limited experience and language abilities" (31, p. 64). The initial efforts of the component were to highlight social studies, the study of life, as the pivotal point of all learning in the project. Two major criteria were set forth (31, p. 64):

1. Teach from a child's own life experiences: require a child to think and reason based on his own past.
2. Use child's own language as a tool to reinforce favorable self concepts and as a realistic point from which to begin language development.

Parents and students were to have a significant role to play through advisory councils to the component. The staff members, with these advisors and other consultants, were to develop scope and sequence for the grade and subject matter areas to be treated with the new curricula. Additionally, state adopted texts and other materials could be used as they fit the objectives of the plan. The component director and curriculum specialists (elementary, middle, and secondary; subject matter as needed) were to develop and implement a grades K-12 curriculum with the assistance of the advisory councils, the cultural advocacy and evaluation component staffs, and other available district personnel.

Handicapped Component

"The present measures utilized to determine whether a child is handicapped or not," according to the funding document, "do not take into consideration the child's cultural, perceptual, language, and economic characteristics." (31, p. 74) The component was therefore charged with the development and implementation of an alternative system of responses for the handicapped children of the project. These included pupil appraisal instruments and systems, training for integrating the handicapped children into the regular program, instruction compatible with the children's characteristics, and especially, individualized instruction. Parents and other community resources were to be utilized in carrying out these assignments.

Five major types of handicapped children were identified for inclusion: mentally retarded, emotionally disturbed, language and/or learning disabilities, pregnant students, and speech handicapped. The component felt that it was "handicapped" by its title and in mid 1973 requested a change to supportive instructional services. (e41) That same year the component director asked that the entity be disbanded and its activities be assumed by curriculum (e44). That was accomplished in January of 1974.

Cultural Advocacy

The preliminary statement for this organization's functions noted that the district had largely ignored the cultural needs of the students. "Students need to feel good about who they are, they need to understand Mexican American history, they need to see people like themselve as success models." (31, p 82) The coordinators were to be responsible for overseeing the development of culturally accurate curriculum, staff training activities and teaching methods, and for assuring that the activities provided students with positive reinforcement of the heritage and accomplishments of Mexican Americans and Blacks.

As would be expected from this assignment, the component worked in conjunction with the others and, further, conducted some activities of its own. During the planning exercises of 1974-1975, an extensive cultural advocacy committee report was produced (e3). Shortly thereafter, however, it was decided that the functions of the component were to be assumed by everyone in all the other components (d25). The staff was transferred to other positions and the component, as a separate part of the Edgewood School Plan, ceased to exist.

Family Services

"The family services program will be designed, directed, and staffed by students of the middle and high schools with training and assistance from professional and paraprofessional personnel." (31, p. 86) It was to serve as a laboratory in which students could experience and learn about strategies for change; it was also to assist the students, their families, and others in the community make better use of services provided by other agencies.

The program was to develop strategies for bringing about parental involvement with the schools and other institutions. The self help approach was to be emphasized and the development during 1974 of special classes for adults, under the title of the Community Interaction Program (e30), and in 1975 of the alternative high school (e38), were important modifications engendered through this approach. Opportunities for college credit were organized through classes in the community (e36) and the component also facilitated some staff development in university certificate and degree programs (e35).

Evaluation and Pupil Appraisal

This component, generally called Level I,* was given two main areas of work: formative evaluation of the project's activities and the development and implementation of better pupil appraisal activities. (31, p. 90) It was further described as a research organization. Originally, the component was to have two divisions, one for the formative evaluation and the other for pupil appraisal activities. Due to budgetary limitations, the staff carried on both functions jointly.

The component did not begin operation until 1973 and the required testing and the needs assessment survey occupied much of its early months. (17) It worked with the other components on several assessment tasks and, of particular interest to the present study, performed some staff development activities through classroom observations and feedback sessions to the ESP staff and to teachers. (e48)

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*Level I was internal to each experimental schools project and performed a formative function; Level II was external and was seen chiefly as summative in design; Level III, to serve cross site purposes, was never implemented.

The Process of Academic Change

The experimental schools program in the Edgewood Independent School District was operated under National Institute of Education funding for five years, 1972-1973 to 1976-1977. During this time, the process through which academic change was effected underwent some major modifications, and even program thrust changes, as the Edgewood School Plan developed. Four important and fairly distinct periods can be identified:*

- Initiation: 1972 through early 1974, with studies of curriculum and its implementation tailored to the perceptions of the staffs about the elements of the Final Plan.
- Redefinition: most of 1974 and into 1975, with needs surveys and re-planning exercises resulting in new, expanded, and/or modified philosophy and implementation.
- Reformulation: overlapping redefinition in late 1975 and carrying forward into early 1977, in which time some new programs were developed and the implementation of curricular materials and methodologies were intensified.
- Interphase: much of 1977, in which the district reviewed the previous programs and products, and developed plans for incorporation of some of them into the regular district operations.

The production of curricular materials and their implementation in the elementary, middle, secondary, and adult classrooms varied considerably during these periods. As such, then, they represent dimensions of growth in this experimental schools program.

The Studies of Academic Change

The Edgewood project personnel, and the evaluation staff that documented and examined the process and products of change, used a variety of theoretical and research literature as the bases for their work, as shown in the many bibliographies to their reports. The development of curricula and curricular materials, the implementation of these and their accompanying instructional methodologies, and the approaches utilized in these processes, chiefly subgroup and individualized instruction, were the major dimensions for comprehension of the field. The evaluation of these, including the instrumentation, was important primarily to the internal and external evaluation units.**

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*These are commonly called Phase I, II, III, and Interphase in the Edgewood School Plan documents.

**The Level I documentation provides the theoretical bases for its approaches and except as needed in explaining their staff development activities, will not be dealt with in this report. The Level II evaluation theory and instrumentation references are included in the research methodology.

The Edgewood School Plan represented certain important departures from the traditional approaches to both curriculum and instruction. These grew out of a particular history of the district (7, 75) and were articulated in the project's basic plan (31), expressions of expectations for the program by community members (32, 101), and in the theory of incompatibilities, tentatively delineated in the Final Plan (31) and expanded in subsequent publications (11, 12). The Edgewood School Plan documents themselves added explanation and definition to the departures, especially their philosophy of communications skills (e13) and personalizing instruction models (e17).

The review of these documents gave a persistent direction to the development of the curricular materials and their implementation in the program: students were said to begin school with negative self concept and attitudes and these worsened with exposure to school. Affect, then, was a major subject for treatment, both in the curriculum and in the instructional management. The reviews of the theories and research about them, however, have been thoroughly covered in other publications about the Edgewood School Plan (especially 15, 16, 77), and are not included in this study.

Curriculum has been defined in many ways, from that limited to the selection and organization of content, chosen by Gagne (38), through the seven processes of Taba (92), to very broad inclusions of nearly everything that occurs relating to school. Goodlad (44), Herrick & Tyler (48), Maclure (70), and Oliver (78), among others, tended toward a middle path operational definition, primarily utilizing a curriculum and instruction approach, i.e., considering both content and its accompanying teaching methodology. This latter, approach, somewhat restricted in scope, appeared to have guided much of the work of the Edgewood School Plan staff members.

The general process of curriculum change was substantially treated by Leeper (66) and the conflicts between theory and implementation were explored in depth by Lamm (64). Specific steps toward development were explicitly described in Mager's treatise on instructional objectives (71) and in Bloom's taxonomy of objectives (10). Lindvall & Bolvin (67) looked at the individualization of curriculum in detail and Jernstedt (50), among many, described the relative effectiveness of individualized and traditional instructional methods.

The Edgewood School Plan's emphasis on the communications skills reflected the integrated approaches evident in Berg (8) and the diagnostic and prescription methodologies of Guszak & Lopez (46). The experimental program's bilingual English - Spanish curriculum development, staff training, and instructional methodologies nearly paralleled the discussed implications and implementation in Anderson & Boyer (6), Cruz et al (20), Darcy (23), Del Buono (24), Gezi (40), Kessler & Quinn (57), and the Texas Education Agency guidelines (94).

The Final Plan saw the teacher as the vehicle for effecting academic change. That view has been espoused by many writers in the field, typified by Amidon & Flanders (1). Teacher - pupil interaction (2), classroom climate and learning (3), and the effects of curriculum on the social climate of learning (5) have been well documented. Finally, the program's determination to provide an open climate in which students could grow individually and in relation to their social and physical environments are well described, especially in Traub et al (98).

The conceptualization of these constructs, their realization, and some of the processes and results have already been described in the reports of the Development Associates* external evaluation team:

- two interim process studies (17, 26);
- research into the affective variables (17, 54, 86);
- the cognitive results (14, 107);
- the relationships between the affective and cognitive domains (15, 16);
- specific investigations into the language characteristics (19) as they related to the program; and
- certain processes of implementation (17, 18, 19, 80).

Findings from those studies, in the present report, will be introduced only as they add important information to the primary topic of this discussion, that of the curriculum and implementation of the Edgewood School Plan.

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*Development Associates is a private firm based in Washington, DC, and with several regional offices. The National Institute of Education contracted the external evaluation of the Edgewood School Plan to the company.

CHAPTER II: RESEARCH APPROACH

The Office of Education was concerned with the curricular materials that would be produced in the San Antonio experimental schools project and with the implementation of those materials. In its call for proposals (100), the investigation of these was specifically ordered. Development Associates, in its proposal to evaluate the program (25) acknowledged the request with outlines of approaches that could be incorporated into the research design. The company's Phase I (27), II (28), III (29), and IV (30) refinements of the research methodologies, detailed the ongoing and proposed plans for documentation and evaluation.

The Edgewood School Plan personnel began, in early 1974, an extensive replanning exercise. One of the results of this effort was substantial modification of the curricular materials and the utilization of those already produced, plus the creation of several new sets. The documentation of this work in the Development Associates second interim report, covering the first two years of the experimental program's operation, and the concerns raised by the research team, brought about an examination into the design for curriculum and instruction. Preliminary documents were prepared to facilitate the study and a joint Development Associates/ National Institute of Education seminar was conducted in early 1975 to make the final determination of the research methodology for this evaluation section. Recommendations were formulated (76, 102) and these were published in a report (13), culminating in a revised proposal (51) which was subsequently approved with minor revisions by the Technical Panel (87, 95, 96, 97), and incorporated into the investigations.

Perspectives of the Study

The early Development Associates evaluation designs presumed that certain curricular materials would be produced, adapted, or adopted, that teachers would be trained to utilize these, that they would then be implemented, and that after internal evaluations indicated, modifications would be incorporated. That is, it was expected that essentially there would be long term use of the curricular materials and that these could be studied through an examination of their qualities as proposed in the Final Plan; their implementation along with the teaching methodologies employed through the years; and, the results could be measured via changes in the affective and cognitive domains. Several events transpired, however, which severely limited that design.

Changing Philosophical Emphasis

The first set of events was within the Experimental Schools Project/Edgewood School Plan and the Edgewood Independent School District. The liberal element in the school board that had approved the experimental plan was greatly reduced in elections subsequent to the formulation of the plan and the general tenor of the board could then be termed "academic conservatism" with increasing concerns for "reading, writing, and arithmetic" and decreasing concerns for bilingual education, teaching Spanish reading, and the incorporation of Mexican American culture into the curricula. (17, 75) The superintendent under whose direction the Final Plan had been written, left his position to go into private business. The director of the experimental schools project also left the district, the replacement stayed only a few months, and several key project personnel also transferred to other positions or left the district. These vacancies, plus other positions that had never been filled, were, through late 1973 and early 1974, occupied by new personnel, most of whom were recruited from the district. The new superintendent was characterized by a board member (d17) as "...an academic superintendent, deeply concerned that our students learn to read and write."

The title of the Edgewood program, the Experimental Schools Project, was changed to the Edgewood School Plan. A board member, reflecting on this change somewhat later (d22), said that "...the idea of experimenting with our students is unacceptable; we need 'tried and true' methods of teaching these children that will raise their academic achievement." The results of several surveys showed these not to be isolated opinions, rather they appeared to be fairly accurate portrayals of the feelings of the community. A parent survey conducted jointly by Development Associates and the Family Service Component of the Edgewood School Plan (unpublished data), a parent survey conducted by student assistants in the Family Services Component, another by students under the guidance of the Cultural Advocacy Component, and needs assessment surveys by the internal evaluation team generally showed parents, students, principals, and teachers to have little concern with the teaching of Spanish and the Mexican and/or Mexican American culture. (d53, d78, e29, e75) Apparently the mood of the 60s, in which a considerable striving for these was evidenced (75), had waned. In one staff meeting, an Edgewood School Plan specialist characterized the students "...little Anglos; they're no different from Anglos" (d96). A subsequent research study found the students' values to be "mostly middle class" (74).

The new director of the Edgewood School Plan remained an advocate of the precepts in the Final Plan throughout his tenure and in a final interview during the closing days of the experimental program in June 1977, he reiterated that he "...felt compelled to follow the Final Plan; it was our guiding document and I had to try to implement it." (d47) The staff agreed with him for the most part. During the staff meetings and interviews, too numerous for citation, there were repeated statements about the necessity of following the Final Plan. These almost disappeared in 1976 and 1977, however, and were replaced with statements about the need to "leave something worthwhile in the district after we're gone." (d35, d36)

The net results of these changes was modifications in the nature and content of the curricular materials. The Experimental Schools Project, the initiation stage of the program, produced a substantial amount of curricular materials. (Scan the production dates evident in the curriculum section of the bibliography and documentation section of this report.) Some that were developed during the last months of that program phase were never implemented. Most of the others received little or no program staff attention thereafter and if any continued in use, it was because a teacher had retained the materials and made them a part of her regular instruction. Subsequently, the communications skills materials, in the redefinition state, were produced for about six weeks classroom implementation, and except where some portions of them were incorporated into later materials, were largely abandoned. A new wave of production began and carried through the end of the project. The difficulties of identifying the materials and the classrooms where they were being implemented are evident. The task was, at times, nearly impossible.

Changes in Implementation Personnel

The Edgewood Independent School District was an economically poor district throughout the life of the program. (75) The salaries, with the exception of bonuses paid some years, were exactly at state minimum. Most of the other districts in the county paid some amount above minimum; a few paid substantially above that level. Teachers often began in the Edgewood district and then moved to better paying jobs elsewhere in San Antonio or Texas. This also applied to principals and other personnel although to a lesser extent.

Whether for these reasons or because personnel were hired and fired to help improve the quality of the staff, there was a nearly constant personnel turnover in the district schools, with some more affected than others. In one treatment school, for example, the research began with fourteen implementing teachers in late August when school began and twelve of these changed before the close of the school year in late May. In another, seven of twelve moved. This considerable movement was more evident in two of the comparison and three of the treatment schools than in others. The principals changed also. Only one persisted during the full five years of the program's life.

Not only did these changes cause considerable problems for the experimental schools program personnel, especially for staff development, but they also constrained some of the analyses that could be performed within the evaluation. The perceptions of teachers, expected to develop as experience with the curricular materials increased, were measured annually but comparisons, longitudinally at least, were mostly limited to teachers as a group rather than the same individual's perceptions over time. Cervantes & Jones (18) discussed these problems in greater detail in their study of the communications skills program. Staff development would have been expected to change the instructional approaches toward more individualization and openness, a declared objective of that component, with exposure to the training over time. The personnel changes placed extensive limitations on the analyses of the classroom observations conducted over the years. Potter, Jones & Cervantes (80) reported the numbers of repeated observations and the limitations these imposed.

Regulatory and Budgetary Complications

The Experimental Schools Project/Edgewood School Plan was designated for a substantial sum of money for the creation and implementation of the program, slightly in excess of six million dollars. Due to congressional cutbacks, that amount of money was never actually available to the district. Certain plans for the development of curricular materials, for the staff training, and for implementation were, thus, not possible. Additionally, the regulations of the federal government on expending monies, plus those of the district, imposed some limitations to the project. Vacancies thus remained unfilled for considerable lengths of time (the program was never staffed to its full compliment) and some equipment and materials were not purchased. What was measured, then, was an incomplete product.

Some of these same restraints applied to the external evaluation team. Processing nominations for filling vacancies caused some delays but these were generally not excessive, even though in terms of the work that had to be done at the moment, they were costly to the research. The chief problem caused by budgetary cutbacks was that of limiting the evaluation research to the first four years of the five years of the program. The continuation of the studies through that fifth year could have added important data to the report: this appeared to be particularly crucial to the present study for some of the curricular materials were barely into the implementation stage when the measurement ceased. The final documentation, then, was limited to interview data from the directors of the several components and of the Edgewood School Plan, and with some of the district officials. No corroborative data were available to accompany this information about the fifth and final year of the experimental program.

Degrees of Implementation

While no written policy so stating could be discovered, the reality in the Edgewood Independent School District, as with most in the State of Texas, is that the principals and teachers, within certain bounds, have a considerable autonomy on what and how much they will teach. Thus the materials produced or adopted by the experimental program were implemented in varying degrees. In some case the materials were the primary vehicle of instruction, in some they were supplementary to other materials, and in still others they were not implemented at all. For example, one set of materials was not implemented in any of the classrooms of one school. In many instances, classrooms were discovered in the documentation process that were making little or no use of the written documents provided by the program.

This reality posed two distinct problems for the researchers. First, it imposed a great burden on them just to determine in which classes the materials were being implemented. Pre-implementation and implementation forms and on site monitoring were utilized to determine where treatment was occurring. Teacher descriptions of the utilization provided the degree of implementation. The second problem was the attribution of the effects of the curricular materials. Specific codings had to be devised to partial out the data of the general affective and cognitive test administrations to deal with this problem. And, just as importantly, the findings had to be qualified considerably because the models developed by the experimental program were incompletely tested.

In summary, there were a number of constraints placed on the experimental schools staff, limiting full development of the program, sometimes at critical periods. There were also some constraints on the external evaluation team and the main one, that of final year measurement, left an important period with very limited investigation. Nevertheless, the documentation and research for this report is unusually extensive. The large amounts of process information and study data forms a substantial base from which to draw conclusions and inferences. This body of data lends credence to the findings.

The General Design

The external evaluation design included a complex set of studies designed to investigate the curricular materials themselves for quality and presentation, as well as for their contributions to the specifications of the Final Plan, chiefly that of contained cultural relevancy and bilingualism. Staff development was expected to be reflected in the implementation strategies and methodologies and thus was documented for content and general applicability to the needs of the instructional staff. The classroom implementation was studied through two classroom observation strategies: a partially standardized instrument and technique, and by expert teachers for the subject matter involved. Finally, the proof of the project, as stated by the Edgewood program itself, was enhancement of the affective characteristics of the students and their increased academic achievement scores.

The general design was patterned after applicable portions of the general tenets of Stufflebeam et al (91) and Tyler, Gagne & Scriven (99), both of which recommended studies of the instructional content and methodologies. The system delineated by Knight et al (59) aided in the organization of the several types of data to be collected. The specific data and the integration of these are indicated in the appropriate sections of this report.

Assessment of Curricular Materials

The production of curricular materials was expected from the beginning to involve students, parents, teachers, the experimental schools project staff, and consultants. Further, the materials were to include not only those developed by these participants but also would encompass materials adopted and/or adapted from other sources. The collection of these materials was then a major dimension in the study. The experimental schools program supplied a large proportion of the materials in the external evaluation collection; others were collected or described from the classroom observations and other on site visits by the team members. A few were known to exist but were never collected, some due to their nature (tapes, video materials, or because the expense prohibited reproduction of duplicates) and some because when their existence became known, they could no longer be located. The collection, however, is extensive and comprises nearly all the materials known to have been used during the program implementation. (See the curricular materials sections of the Bibliography and Documentation portion of this report.)

Quality Review by Specialists

Nearly all the literature on the evaluation of curriculum emphasized the need for experts to review the materials, paying particular attention to the scope and sequence, the general and in this case, the cultural content, the accuracy of the material presented, and the appropriateness of them for the intended grade level. The presentation of the materials also provides important indications of their probable acceptance, especially those materials that are to be used directly by students. Size of type, clarity of printing, interest level of illustrations, and arrangement on the pages and through the set, are recommended dimensions.

With the approval of the Technical Panel and the concurrence of the National Institute of Education, curriculum experts were selected to make the quality reviews. These professionals included:

Dr. Barry B. Thompson: many years experience in teaching mathematics and science, in the supervision of the teaching of these and other subjects, and in the development of curricular materials. This latter included programs for regular and underachieving students and for bilingual students. His doctoral degree from Texas A&M University combined both curriculum and administration. He served as an assistant superintendent for instruction in the Waco, Texas, schools, professor of curriculum and administration in Pan American University, and academic vice president of East Texas State University. He has served as a consultant to many curriculum and instruction development programs.

Mrs. Hercilia X. Toscano: a teacher for many years, including bilingual classrooms. She developed one of the first bilingual programs in the state and it was recognized and copied as exemplary. After doing graduate work at Trinity University, Texas A&M University, and the University of Texas at Austin, she began curriculum development work with the Southwest Educational Development Laboratory and specialized in the production of bilingual elementary materials. She has conducted intensive training with teachers across the United States in the implementation of bilingual education. She has also been a consultant to many programs, including the bilingual program in Guam. The materials she helped produce are now part of the adopted texts for bilingual education in Texas and are widely used elsewhere.

Dr. Antonio E. Garcia: taught at elementary and secondary levels, was a principal, directed migrant demonstration programs, and aided in the development of bilingual curricular materials in many schools of the state. He did graduate work at St. Mary's University, Texas A&M University, and completed his doctoral degree at the University of Texas at Austin. He joined the staff of the Southwest Educational Development Laboratory and there, in addition to supervising the implementation of materials in a large portion of Texas, worked closely with the social studies staff in their materials production. He later directed the migrant program for that institution. He is currently superintendent of the Rio Grande City (Texas) Consolidated Independent School District. He, likewise, has served as consultant to many institutions across the country.

Further, the Development Associates team itself held considerable expertise in education and their services were utilized in some of the special reviews in facilitating information to the expert staff retained for this part of the evaluation.

All the important, in quantity, sets of curricular materials were examined by these experts. When the sets were relatively smaller, one year or less, the entire set was examined. Very large sets, such as those in best paced mathematics, were studied through 25% samples. The specific qualities named in the beginning of this section of the report were answered for all materials when possible from the material available. Further, each set was also described in a summary statement providing an overview. The data are used in two ways in the findings: specific comments about the materials are incorporated directly into the descriptions of them and in the summary table presenting the major features of the evaluation.

Readability Levels Analysis

Research has shown high, positive relationships between the readability levels of materials and the degree of learning from them (73). While most research has compared achievement from two different sets of materials, such as in the case of the present research, those with varying readabilities of the same materials have also been studied (58) and with much the same results.

The most frequently reported measure in the literature for English materials is the Dale-Chall technique (22). That system is quite complicated and tedious to apply to large volumes of material. A simplification of the measure was devised by Fry (36), utilizing easily interpreted tables. Upon recommendation of the Technical Panel, the Fry method was chosen. A specific formula was applied to each of the Edgewood materials in that the nearest page to 25, 50, and 75% through the set was located. A 100-word section, beginning with the first complete sentence on that page, was used for the measurement. Average length of sentences and number of syllables in the passage were determined and the grade level was then extracted from the appropriate Fry graph. Average level was calculated from the samples examined.

The same procedure was used with the Spanish materials as outlined for English except that the Spaulding (89) lists were used from the modifications of an earlier Rodriguez Bou (83) compilation similar to that of the Dale-Chall English lists. Equivalent local vocabulary was treated as existing in the lists if the size and complexity of the words was similar to those provided by the author.

The readability levels of the experimental materials, the adopted texts used in some of the classrooms, and those employed by most of the comparison classes are discussed in the narrative sections of the report. Additionally, the grade level indications are included in the summary tables to facilitate general scanning for the qualities of specific materials.

Cultural Relevancy Determination

The Edgewood plan placed particular emphasis on the adding of culturally relevant materials to the curriculum. This was to include specific materials about Mexican Americans, Blacks, and other minorities, as well as experientally relevant content about the areas in which the students lived, San Antonio, Texas, and Mexico.

These same views were widespread in the literature. Kolm (60) and Kopan & Walberg (62) supported cultural input. The Weinberg (106) bibliography contained 10,000 references on culture content. Del Buono (24), Gill & Spilka (41), Gillman (42), Henderson et al (47), and Lopez, Grinder & Clark (69) all found some affective and/or cognitive improvement when culturally relevant curricula were instituted.

Jackness (49) provided a simplified method for measuring cultural content and the essence of that model was used in the present research. Utilizing the same sampling model presented on readability, selections were examined for references to those elements indicated for relevancy, except that a larger number of words, 500, were included in the passage for examination. Approximate percentages of an incidence were calculated in relation to the total passage and average relevancy content was then determined.

Bilingual Education

Generally, the provision of materials in Spanish was noted as satisfying the bilinguality factor in the curriculum materials. Notations of whether or not Spanish versions or alternative units were included or whether special Spanish materials were provided, are in the summary table. In some cases there were no directly comparable materials in English for some of the units examined. This was sometimes nearly unavoidable, however, as the state adopted texts, and those adopted from companies and other institutions, were designed as "companion pieces" to adopted texts rather than parallel or expanded versions of the English. Too, some supplementary materials were produced or acquired to cover areas thought not to be adequately present in other materials.

Teacher Perceptions of Materials

Since teachers are the primary facilitators of curriculum, their opinions about the materials produced were seen as vital to the evaluation. An opinionnaire was administered the last three of the four years studied and the data were tabulated. Due to the limitations imposed by teacher turnover and the option to use or not use curricular materials made available, these results are not analyzable by most of the expected dimensions. The general results are incorporated into the narrative, showing trends where possible. A relatively large scale study was conducted on the communications skills program materials and was reported previously (18). Extracts from that report are included, where applicable, in the present document.

Classroom Observations

Although primarily to document teaching methodology, some portions of the studies using the OScAR 2a (72) and a later version, the M/OScAR (74), examined some items pertinent to curricular materials. As appropriate, extracts from the report on those studies (80) are integrated into the curriculum portion of this report.

Related Studies

In addition to the internal and external evaluation staff studies, several graduate students from Trinity University, the University of Texas at San Antonio, and the Texas branch of Antioch College produced information about curriculum in the experimental program. Two consultant reports on curriculum, contracted by the Edgewood School Plan with outside sources, were also available for review. One internal evaluation document provided insights into the curricular materials, also (51). Portions of the information included in these are used in the narrative for the curriculum section.

Affective and Cognitive Test Results

Classical studies of the results of curriculum have generally used a set of materials, implemented over time, and the anticipated outcome is measured, whether it be affective or cognitive. Development Associates expected to conduct the same type of study. Because of the variability of the materials over time, and their varying implementation during those same periods of time, the task was impossible for much of the material. In cases where the treatment was found to be substantially implemented and where it persisted over a length of time that might have an effect, the data for those classes and subject matters were examined. Where these conditions were met, and where changes in affective or cognitive scores were found, some indications for attribution of the effect of curricular materials in conjunction with the instruction of them were examined. Those cases are explicated in the narrative of the report.

Assessment of Staff Development

Staff development was to provide the linkage between the curricular materials and their implementation in the classroom. The nature of the training, however, and its influence on implementation, caused measurement to be difficult. Attribution of its effects necessarily had to be inferred, for the most part, since the results of the training were indirect, that is, training was expected to change the way teachers conducted their classes and these changes should result in enhanced affective characteristics in the students and their academic achievement should be improved.

The staff development study is largely descriptive. A partial list of the training is provided in the body of that section of the report, facilitating review of the quantity and diversity of that training. Secondly, opinionnaires were distributed to the participants in about 25% of the training offered. (Appendix A1) Each participant was asked to rate (none=0, little=1, some=2, great=3) the utility of the training to their work (aide, parent helper, curriculum writer, teacher, principal). Separate ratings were solicited on content, the methods used, practicability, and skill of the workshop conductor in carrying out the training. These were summed for each participant and average ratings were calculated for the entire group. These scores are reported in the summary table of the training activities and discussed in the narrative.

The research team monitored about 25% of the training sessions and subsequently provided narrative reports on them. These included descriptions of the general climate, reactions of the participants as they were evident from overt statements, and general information on the objectives, conduct, and materials used. These are included in the narrative.

The reports of the staff development component contained some information of an evaluative nature on the training that had been conducted. This information, too, is included when available. A more comprehensive report was prepared by the component in conjunction with the internal evaluation unit (e77) and summary data from that publication provided an important dimension in this study, particularly because it contained information on the fifth year of the project, not monitored by the external evaluation team.

The results of two other external evaluation studies, one on the perceptions of teachers about their classroom practices (18) and teacher classroom behaviors (80), are discussed in the narrative of the present report as they related to the intended effects of the staff development work and their realization in the minds of the teachers and in the daily classroom activities. While these were not direct studies of the staff development, some attribution could be inferred.

Assessment of Instruction

Instruction, in the context of this report, was broadly defined as the conduct of educational activities, similar to the process definition of Taba (92). It encompassed the use of the word implementation by Nasca (76) and treatment by Walberg (102), and the nature of teaching/learning utilized by Good & Brophy (43). The goals and objectives stated in the Edgewood Final Plan and the subsequent interim documents of the Experimental Schools Project and the Edgewood School Plan formed the bases for the research undertaken. Specifically, the study explains, when applicable and data were available:

- process descriptions
- general instructional approaches
- teaching methodologies
- quality of implementation
- management of instruction
- climate of instruction
- perceptions about the instructional practices
- perceptions about the effectiveness of instruction

While not all of these were pertinent to every studied implementation, each was examined when possible.

The instructional activities of this experimental schools project covered a wide range of audiences and some of these, because of the type of participation, required different approaches to the research. Although the approaches were not exclusive to any one of the categories of instruction, the study was organized into four major divisions:

1. Regular grades K-12 classroom instruction.
2. Non-classroom instruction, chiefly involving grades 7-12.
3. Formal training of adults (Graduate Equivalency Diploma, university, and the External High School instruction), in which a diploma or credits toward a degree were involved.
4. Training of adults in which no high school or college credits were offered.

Although somewhat artificial in its separation, the regular staff development of aides and teachers, as it related to the improvement of instruction rather than direct client training; was excluded from this section of the study report.

Classroom Instruction in Grades K-12

The studies of the implementation of these grades consisted primarily of four types of observations about the classes.

1. External evaluation observations via the Observation Schedule and Record (OScAR 2a) for the semesters of spring 1973 through spring 1974 and from a modified version of that instrument (M/OScAR) (74) for the semesters of fall 1974 through spring 1976.

Two sections of the OScAR 2a were retained in the M/OScAR, teacher interpersonal style and emotional climate, and they were analyzed across all seven semesters. The other sections of the M/OScAR were designed specifically for the Edgewood study and were analyzed across the last four sets of observations. All of these analyses, and the explanations of the instruments and their components, were described in the separate study that reported them (80) and are not repeated in the present study. Further, the statistical tables in that study are summarized in the presentation of the findings without including the tables themselves.

2. The second set of observations were those from the perspective of the teachers, that is, they were the perceived classroom practices.

The first portion of this study was taken from a separate study (18) of the perceptions of the teachers and others in the system of the communications skills program, a 1975 curriculum and instruction thrust of the Edgewood School Plan. That investigation utilized an opinionnaire prepared especially for the 1975 program and included a modified version of the Dimensions of Schooling Questionnaire (35, 79). That instrument was described in the separate publication and will not be repeated herein. Its primary emphasis was to measure the utilization of several classroom practices graduated on traditional to open education scales. The general findings from the previous study, when applicable, were updated from a 1976 application of that questionnaire in the present report.

3. Expert teacher observations of the teacher and student behaviors were conducted in spring 1975 and spring 1976.

Upon the advice and consent of the technical panel to the research, the services of expert teachers were obtained to carry out and describe independent investigations into the implementation of the experimental program treatments. Their study used a behavior description guide (Appendix A 6) on which to record their observations.

The expert teachers recorded the following information during each observation:

- Teacher elicited summary of what the class had done during the year and what it was doing at the time of the observation.

- Observed instructional practices (precisely what the teacher and students did during the observation).
- Evidence of individualized and/or small group instruction.
- Description of the classroom climate.
- Description of any unusual conditions important to the learning process.
- Description of the use of Spanish and culturally relevant context.
- Description of the materials utilized.
- Description of the general treatment status.

The results were summarized into general statements about the classroom instruction by level (elementary, middle, and secondary) when appropriate, and by subject matter taught during the observation. The findings were incorporated into the narrative of the present report.

Upon the advice and consent of the technical panel to the research, the services of expert teachers were obtained to carry out and describe independent investigations into the implementation of the experimental program treatments. These teacher experts included:

> Mrs. Alice Carrillo: nearly 20 years teaching experience in both elementary and secondary schools in the Edgewood Independent School District and pursuing a masters degree in curriculum and instruction at Trinity University at the time of the observations. Her experience included work in bilingual education.
>
> Mrs. Marietta Rodriguez: nearly 10 years teaching experience in mathematics and other subjects in the middle and secondary schools of a private institution in San Antonio and the San Antonio Independent School District. She had a Master of Education degree in curriculum and instruction.
>
> Mrs. Manette Parker: an experienced language arts teacher from the San Antonio Independent School District. She was pursuing a masters in curriculum and instruction.

Separate observations were also conducted by three of the experienced evaluation team members and were used as supplementary to the expert teacher observations.

The observations were conducted in both the treatment and comparison classrooms, proportionate by level (elementary, middle, secondary) and by subject matter when applicable.

In 1975 the observations were conducted in every known treatment classroom in the elementary, middle, and secondary schools. A proportionate stratefied random sample of the classrooms was drawn from the same levels and subject matter areas in the comparison schools. A total of 123 observations were carried out that spring, with 70 in the treatment classrooms and 53 in the comparison classrooms.

The 1976 observations utilized a roughly 25% smaller sample. That spring, 91 observations were conducted with 50 in the treatment rooms and 41 in the comparison rooms.

In addition to these guided observations, general descriptions of the major treatment instruction were prepared by the expert teachers and by three members of the external evaluation staff. The information from those descriptions was utilized in the narrative report. Several graduate students of Texas colleges also produced studies about the experimental school treatments. Extracts from those studies were woven into the narratives when applicable and are cited when used.

4. Students' perceptions of the classroom climate were investigated in spring 1976 via the My Class Inventory and the Learning Environment Inventory.

At the suggestion of Nasca (76) and Walberg (102) in the Development Associates/National Institute of Education seminar on the attribution of program effects, the students' perceptions were added to the general studies of curriculum and instruction in the Edgewood School Plan. These companion instruments (the My Class Inventory was used with first and third grades in this study; the Learning Environment Inventory was administered to fifth, mixed seventh-eighth, ninth, and eleventh grade students in the treatment and comparison schools. The samples approximated 25% of each grade; whole classes, drawn randomly, were tested.

The My Class Inventory contains 45 items spaced randomly through the instrument with nine items each totalling to a factor score. (Appendix A4) Eight of the items are stated in the negative mode; the rest are stated positively. The five factors are: satisfaction (whether students like the subject, teacher, classmates), friction (conflict), competitiveness (striving to outdo others), difficulty (problems experienced in learning), and cohesiveness (amount of intimacy felt among individuals and subgroups). Anderson (4) reported individual test-retest reliabilities for the five factors of .77, .70, .56, .56, and .54, respectively, with 655 subjects tested. The author of the instrument also reported that "...The My Class Inventory appeared to be superior to...[another, unspecified instrument] ...the scores were more interpretable..." quoting a Maguire, Gaetz & Manos study of 1972 [not examined by the present report authors]. "... there were no significant differences in scores obtained on different testing days (1 week interval)," again quoting a publication not available to the present researchers, by Jung in 1971. (4, p. 16) This instrument for primary children uses a yes=3, no=1 (except reversed for the negative mode questions) and yields a score range of 9 to 27. No total score is calculated.

The Learning Environment Inventory contains 105 items spaced randomly through the instrument with seven items each totalling to a factor score. (Appendix A5) Twenty-six of the items are stated with reverse polarity. Fifteen factors are included in the instrument, five of which are the same as those in the My Class Inventory. The other ten are: diversity (variation of activities according to student interests), formality (behavior guided by formal rules), speed (rate of learning progress), environment (physical features of the classroom), goal direction (recognition and acceptance of goals), favoritism (differential student-teacher relationships), apathy (lack of affinity with class activities), democratic (differences in the authoritarian-democratic continuum in classroom management), cliqueness (amount of affinity with subgroups within the class), and disorganization (perceived logicality of the activities). Four response alternative are provided: strongly disagree=1, disagree=2, agree=3, strongly agree=4 (with the opposite for those items with reversed polarity). Each factor score, then, can range from 7 to 28.

Test-retest coefficients of reliability were quoted to range from .43 to .73 on administrations with 139 high school subjects. (4, pp. 7-8) Alpha coefficients were listed as ranging from .65 to .86 with calculations made with 464 high school students in 1967 and 1048 high school students in 1969. Many validity studies were cited by the instrument author and these presented diverse results. Generally, the manual concluded that the instrument was suitable for group studies but that caution needed to be used when interpreting scores for individual students.

Analysis of variance procedures were used to determine whether there were statistical differences between the experimental and comparison groups, by grade. Additionally, the My Class Inventory scores were compared, narratively, with scores of another Texas study since norm scores were not provided in the manual. Overall norm scores were provided for the Learning Environment Inventory (not differentiated by grade) and these, too, are compared narratively with those from the present research.

Non Classroom Instruction

Developments Associates' Second Interim Report on the Edgewood School Plan (17) included a detailed description of these activities, primarily conducted by the family services component. That component changed its focus just prior to the publication of that report, emphasizing services to adults rather than to students. Since no activities of the nature described therein were conducted during the last three years of the project's life, no further analysis was necessary. Because of its importance during the first two years, however, a brief summary of those activities, as they applied to the implementation of the Edgewood School Plan, is included in the present report.

Credit and Degree Training of Adults

The variety of adult training provided by the family services component included preparation for the high school equivalency diploma, classes offering credit toward a university degree, and the alternative high school program. Each is described in the appropriate section of the report. The procedure utilized was primarily process oriented and relies heavily on reports published by the family services component and other entities of the Edgewood Independent School District for the descriptive data. Graduate research work produced by students in local universities also supplied some important perspectives to the narrative. Observation findings of the conduct of some classes, as they were directed toward qualitative rather than quantitative information, are also included in the narrative.

Non Credit Training of Adults

Parent effectiveness training, designed especially to increase the participation of community members into the experimental schools and district activities, was conducted by the handicapped component in the first fourteen months of the project. Subsequently, training for the same purpose, orientation to the several activities of the Edgewood School Plan, and to working with the curriculum writing committees and/or teams was also carried out. This section of the present report, too, is process oriented. Component reports, monitored training session reports by the external evaluation staff, and general descriptions are utilized in the narration to provide information on this phase of the experimental schools work.

The Process Approach

In summary, a wide variety, both in production and implementation, of curriculum and instruction activities were carried out over the five years of the federal funding of the Edgewood School Plan and its precursor, the Experimental Schools Project. Consequently, the design of the research into this vital effort of the project personnel likewise had to be revised with changes in the experimental program. While in a few cases some statistical analyses were possible, and are incorporated where applicable, the study of curriculum and instruction was almost entirely process oriented and descriptive in nature. Nevertheless, the report is important because it documents patterns of growth, reflective of changes in the situation of the experimental program, which may have implications for other projects undertaking similar tasks.

CHAPTER III: THE CURRICULUM AND INSTRUCTION PROCESSES

The basic Edgewood funding document stated that "...The development of scope and sequence plans for all areas..." was to be an essential task of the experimental schools project. (31, p. 65) That same document proposed to begin the work with the social studies and then to progress into the others, assigning the major tasks to the curriculum component of the program. Specific tasks related to the handicapped students were delegated to the handicapped component and for the community to the family services component. The cultural advocacy unit was to assist with the curricula and the internal evaluation team was to evaluate the materials as they were implemented into the schools. Staff development was to prepare the instructional staff for the implementation of the program.

The findings of the external evaluation studies related to the work outlined for these components are integrated in this report into sections on the assessment of:

- curricular materials,
- staff development,
- instruction

regardless of which component produced the results. Research information on the general processes of the tasks of developing and implementing the materials is supplied to augment the specific task descriptions.

Assessment of Curricular Materials

In a May 1973 progress report, an abbreviated curriculum for grades K-12 was outlined as a goal of the curriculum development component. (e6) Although it lacked the detail usually expected in a curriculum guide (it encompassed less than two pages), it did set out the direction the work was to take. No other document of this type was discovered but two produced later (e13, e17) listed the goals of some of the curriculum activity and gave some details on how those were to be accomplished. Finally, although not pulled together into a guide, the scope and sequence documents produced during the last two years (c62 through c82) were sufficient in both the quantity of objectives and activities to serve as separate guides for communications skills, social studies, science, and mathematics, although not all of these embraced the entire grade K-12 span.

A second aspect that merits attention is the quantity and variety of the curricular materials prepared and/or adopted for use in the experimental program. Scanning the entire list prepared by the external evaluation team from its several monitoring activities, the curricular materials portion of the Bibliography and Documentation section of this report, and those studied by the external evaluation team, presented in Table 1, gives evidence of a substantial effort. The collection occupied nearly six feet of file space and many of the items were 20 percent samples (especially best paced mathematics and the middle school materials) rather than the entire massive set of teacher and student materials. And, although not available for every grade, the variety of materials included somewhere in the collection every subject known to be taught in the ESP schools with the exceptions of French, physical education, military training, and some of the vocational courses.

Quality Review by Specialists

One of the most important parts of the study of the curricular materials was their review by recognized specialists in the field. Five separate ratings were produced: physical presentation of the materials; the measurability of the objectives stated; the existence and utility of the pre and post tests; the general applicability of the materials to the subject, stated grade or grades, and indicated teaching methodology; plus an overall, general rating. Additionally, narrative reports were produced with explanations of the strengths and weaknesses noted in the five ratings and details of methodological approaches, content, and general appropriateness.

The quantity of the materials prohibits a detailed analysis of each one separately, therefore, the generalities of the studies will be outlined and important examples of each of the qualities will be pointed out. Examples are included in Appendix B and will be referenced throughout the narrative

Physical Presentation

Of the 62 sets of materials reviewed, only 6 (about 10%) were judged seriously deficient in physical presentation. (See presentation column in Table 1.) Twenty-nine, nearly half, were listed as needing considerable improvement. Apparently the reproduction processes available to the program had limited capabilities and thus much of the criticism was about the quality of the impressions. (See examples 1, 7, and 9 in Appendix B.)

One of the major deficiencies was the size of letters for primary children. The general expectation is that these will be bold, somewhat larger than the size on most typewriters, and spaced adequately to facilitate eye sequencing. Rarely were these qualities present in the ESP produced materials. ESP example 19, however, was considerably better prepared than most, and example 18, a commercially produced text, illustrates the ideal for small children. Both the curriculum specialists (d62, d66, d70) and the teachers (d23, d29, d39) were very critical about this vital aspect stating that first and second graders cannot follow the small and crowded print adequately, causing eye and emotional strain.

Illustrations were seldom used in the ESP produced textual materials. Every consultant commented negatively on the general presentation because of the lack of interesting drawings. Typical of their remarks was "...there is page after page of print with nearly nothing to capture the interest of the student reader, to break the monotony of thousands of words..." (d62) The same consultant pointed out several simple but effective drawings such as those in examples 14 and 15 in Appendix B, noting that they were easily comprehended by the student and yet little artistic ability was required. A more sophisticated, and yet locally produced drawing is illustrated in example 19, comparable to that in example 18, a commercial product. Some drawings were considered deficient, example 17, because students would have difficulty understanding what was being portrayed.

Table 1: Summary Analyses of ESP Curricular Materials: Subject Matter Culture Content, Quality Review Ratings (Physical Presentation, Grades, and General Rating), Provision of the Pre/Post Tests,

Brief Title	Citation	Subject(s)	Language	Grade(s)	Readability Level	Culture*
Somos de Todo	c 1	Social Study Languages	Span. Engl.	1-2	1.6 1.4	4
Comunidad y los Alrededores	c 3	Social Study Languages	Span. Engl.	2-3	2.3 2.4	4
Man: A Course of Study	c 5	Social Studies	Engl.	7-12	6 to 11	3
Lengua Espanola: 1	c 6	Language	Span.	1-2	1.1	3
Environment: Map and Graph Skills	c 7	Social Studies	Engl.	7-8	7.9	2
Career Education	c 8	Careers	Engl.	7-12	9.2	1
Algebra	c10	Math	Engl.	9-12	8.1	1
Behavior and Community	c11	Social Studies	Engl. Span.	1	na	3
Community and Student's Role	c12	Social Studies	Engl. Span.	2	na	3
Partes del Cuerpo	c13	Health Language	Span.	1-3?	3.3	0
Best Paced Math	c15	Math	Engl.	7-8	8.1	0
Preprimario de Lectura	c17	Language	Span.	K	na	1
Lengua Espanola: primer grado	c18	Language	Span.	1	1.4	2
Civics: Metropolitan Area	c19	Social Studies	Engl.	5-6	5.5	4
Civics: Citizen's Role	c26	Social Studies	Engl.	9-12	10.6	3
Career Education	c27	Careers	Engl.	9-12	9.8	1
Map and Graph Skills	c29	Social Studies	Engl.	5-6	7.1	2
Speech I	c30	Speech	Engl.	9-10	9.8	1
Environmental Geography	c32	Social Studies	Engl.	7-8	8.1	3
Community and Local Power	c33	Social Studies	Engl.	7-12	9.9	4
Language in Social Studies	c35	Language Careers	Engl.	7-12	9.7	2

Symbols: na=not applicable because of the nature of the material or the materials presented were too few or abbreviated for readability measurement; Engl.=English, Span.=Spanish.

*Culture scales: 0=none detected; 1=occasional or slight reference; 2=substantative reference in less than 30% of material examined; 3=substantive use of culturally relevant material detected in 31-50% of material examined; 4=culturally relevancy included as a major component in the material.

Included, Language of Materials, Designated Grades, Readability Levels, Presence and Measurability of Objectives, Applicability to Designated Provision of Teachers Guide, Year Monitored

Citation	Quality Review Ratings					Guide	Monitored/ Year(s)
	Presentation	Objectives	Pre/Post Tests	Applicability	General		
c 1	3	3	yes	3	3	yes	1973
c 3	2	3	yes	3	2+	yes	1973
c 5	4	2	no	3	3	no	1974-5
c 6	4	0	no	3	3	no	1973
c 7	2	2	yes	3	2+	yes	1973
c 8	2	3	no	2	2	no	1974
c10	2	4	yes	3	3	yes	
c11	2	3	yes	2	2	yes	
c12	2	3	yes	2	2	yes	1974
c13	1	0	no	1	1	no	
c15	2	4	yes	3	3	yes	1974-5
c17	3	0	no	3	3	no	1974
c18	4	0	no	3	3	no	1974-5
c19	2	3	no	2	2	yes	1974
c26	2	3	no	3	3	yes	1974
c27	2	2	no	2	2	yes	
c29	2	4	yes	3	3	yes	
c30	2	3	no	3	3	yes	
c32	2	3	yes	3	3	yes	1974-5
c33	2	2	no	3	2+	yes	
c35	2	2	no	3	2	no	

Other scales: 0=none present or none available for inspection; 1=very deficient; 2=needs considerable improvement; 3=needs some improvement but generally of good quality; 4=generally excellent; ± indicates readability levels approximately appropriate for variable grade materials included.

Table 1 continued...

Brief Title	Citation	Subject(s)	Language	Grade(s)	Readability Level	Culture*
Bilingual Oral and Reading	c37	Language	Span. Engl.	K-1	1.0	3
Bilingual K Kit	c38	Interdisciplinary	Engl. Span.	K	na	4
College Preparatory English	c39 c39	English	Engl.	9	10.1	0
Interdisciplinary Communications	c40	Language and various	Engl. Span.	1	3.4 3.4	3
Science Scope and Sequence	c41	General Science	Engl.	7-8	10.2	0
Concepto Individual	c42	Social Studies	Span.	1-3	4.1	1
Destrezas de Comunicacion: I	c43	Spanish and various	Span.	1	3.3	2
Destrezas de Comunicacion: II	c44	Spanish and various	Span.	1	3.2	1
Fine Arts	c45	Arts and Humanities	Engl.	9-10	9.1	4
Humanities	c46	Humanities	Engl.	7-8	6.2	3
Social Studies	c47	Social Studies	Engl.	7-8	7.6	3
Communication Skills	c48	Language and various	Engl.	2	4.1	1
Social Studies	c49	Social Studies	Engl.	5-8	7.6	2
Lecciones Modelo	c50	Language	Span.	1	1.9	1
Destrezas de Comunicacion: K	c52	Language	Span.	K	na	1
Fountain Valley	c53	Language	Engl.	K-6	±	1
Math for Distributive Ed	c54	Math Business	Engl.	9-11	6.0	2
Communication Arts	c55	Language	Engl.	3	3.9	0
Each Person is an Individual	c56	Social Studies	Engl.	7-8	7.7	3
Fine Arts	c58	Arts and Humanities	Engl.	7-8	8.4	4
Science in Communications Skills	c59	Science Language	Engl.	7-8	8.4	1
Adult Math	c61	Math	Engl.	9-12	7.1	1

*See first two pages of this table for explanation of symbols and scale values.

Citation	Quality Review Ratings					Guide	Monitored/ Year(s)
	Presentation	Objectives	Pre/Post Tests	Applicability	General		
c37	4	4	yes	3	4	yes	1973-4-5
c38	3	4	yes	4	4	yes	1973-4
c39	2	2	some	3	2+	yes	1974
c40	2	2	some	2	2	yes	1974
c41	2	2	no	3	2	yes	1974-5
c42	1	2	some	2	2	yes	
c43	1	2	yes	2	2	yes	1974
c44	2	3	yes	2+	2+	yes	1974
c45	2	2	no	3	2	part	1974
c46	3	3	yes	3	3	yes	1974-5-6
c47	2	3	some	3	3	part	1974-5-6
c48	1	3	yes	1	1+	yes	1974
c49	2	2	some	2	2	part	1974
c50	2	3	yes	3	3	yes	1974
c52	1	2	no	1	1	part	1974
c53	3	4	yes	3	3	yes	1974-5-6
c54	2	4	yes	4	4	yes	1975-6
c55	1	3	some	2	2	yes	1974
c56	2	3	yes	3	3	part	1975-6
c58	2	3	some	3	3	part	1974-5
c59	2	4	yes	3	3	part	1975
c61	1	4	yes	4	3	yes	1976

Table 1 continued...

Brief Title	Citation	Subject(s)	Language	Grade(s)	Readability Level	Culture*
Communications: Book 1	c62	Language	Engl.	K-6	±	2
Communications: Book 2	c63	Language	Engl.	7-8	9.6	2
Destrezas de Comunicacion: Libro I	c64	Language	Span.	K-6	±	2
Destrezas de Comunicacion: Libro 2	c65	Spanish	Span.	7-8	9.4	2
Elementary Science	c66	Science	Engl.	1-6	na	1
Oral Language	c67	Language	Engl.	1-6	na	1
Biology	c68	Biology	Engl.	7-8	na	0
Physical Science	c69	Physical Science	Engl.	9-11	na	0
Social Studies	c70	Social Studies	Engl.	1-6	na	3
Mathematics	c71	Math	Engl.	1-8	na	1
Mathematics	c72	Math	Engl.	9-12	na	1
Advanced Biology	c73	Biology	Engl.	9-10	na	1
Science	c74	General Science	Engl.	7-8	na	2
Ciencia Elemental	c75	General Science	Span.	1-6	na	1
Ciencia Fisica	c77	Physical Science	Span.	9-12	na	0
Ciencia	c78	General Science	Span.	7-8	na	1
Estudios Sociales	c79	Social Studies	Span.	1-6	na	3
Estudios Sociales	c80	Social Studies	Span.	7-8	na	3
Social Studies	c81	Social Studies	Engl.	7-8	na	3
Matematica	c82	Math	Span.	1-6	na	0

*See first two pages of this table for explanation of symbols and scale values.

Citation	Quality Review Ratings					Guide	Monitored/ Year(s)
	Presentation	Objectives	Pre/Post Tests	Applicability	General		
c62	3	2	some	3	3	yes	1976
c63	3	2	some	3	3	yes	1976
c64	3	2	some	3	3	yes	
c65	3	4	some	3	3	yes	
c66	3	4	some	4	4	yes	
c67	2	3	some	3	3	yes	
c68	3	4	some	3	3	yes	
c69	3	4	some	3	3	yes	
c70	3	4	some	4	4	yes	
c71	3	3	yes	3	3	yes	
c72	3	4	yes	4	4	yes	
c73	3	4	yes	3	3	yes	
c74	3	4	some	3	3	yes	
c75	3	4	some	3	3	yes	
c77	3	3	some	3	3	yes	
c78	3	4	some	4	4	yes	
c79	3	3	some	3	3	yes	
c80	3	4	some	4	4	yes	
c81	3	4	some	4	4	yes	
c82	3	4	yes	3	3	yes	

A final section of the work considered to affect the physical presentation of the materials was that of printing/typing and spelling errors. While these were not prevalent in most of the English language curriculum sets, they were noted by the consultants as an important aspect of professionalization, especially in obtaining the respect and enthusiastic participation of teachers. Examples of this type of problem include: English spelling example, 23; capitalization, 24; punctuation,5, 10; Spanish spelling, 8, 13, 22; Spanish accents, 25; incorrect definitions, 20; incorrect translation from English to Spanish, 12. (All example numbers refer to Appendix B.)

In summary, the physical presentation was rated as seriously deficient in a few cases and nearly half were noted as needing considerable improvement. Reporduction impression, size of letters for primary children, scarcity of illustrations, and errors in the textual materials were the major problems encountered. Some excellent examples were present, however, and the consultants pointed out that these merited emulation.

Instructional Objectives and their Measurability

The experimental program had emphasized the necessity of using appropriate objectives for the youngsters to be taught, and that these should have measurable outcomes. The curriculum specialists examined the objectives, when they were present, for their application to the grade and for their measurability. Only four of the curricular materials sets included in Table 1 contained no objectives (c6, c13, c17, and c18) and three of these were commercial texts. One of the instructional guides (c50) utilized materials from these three texts and presented some instructional objectives for them.

Much more common, however, were objectives that were stated in terms that did not lend themselves readily to measurement (examples 2, 7), contained a general objective but lacked those for specific activities proposed (example 3), or did not state exactly what was to be learned (example 9). Excellent sets of objectives were also observed (example 5) and these were present in a high proportion of the materials prepared during the last two years of the program. (Notice the prevalence of 3 and 4 ratings in the objectives column of the last page of Table 1.) The consultants called particular attention to the specificity and measurability of the objectives in the mathematics materials (example 5).

Closely related to the objectives, since they detail the work toward them, are the activities listed to accomplish the objectives. These were generally applicable. Only occasionally (item 5 under procedimiento in example 8) were the activities inappropriate to the stated learning plan. The interest level was often judged very high, and although the quality of the activities was considered primarily as part of the adaptability rating, their relationships to the objectives are evident in many of the examples included in Appendix B.

Provision of Pre and Post Tests

Individualization and personalization of instruction were qualities expected of the curricular materials, according to the experimental program's documents. (31, e13, 317) Diagnosing each student's level for the learning materials was thus an important part of the preparation of these materials. Pre tests were frequently provided (about 65% of the sets) and although except for mathematics, the post tests were not in evidence, the consultants presumed that the repetition of the pre test was to serve as the post measurement.

The tests provided generally spoke quite directly to the objectives and learning activities. While some improvement was indicated by the consultants, there was little criticism of the scope of these examinations. Similarly, errors were seldom noted in the tests (an exception are the alternative answers provided in question 3, which at best would make an unusual wording, and question 9, in which case neither answer is correct, both in example 21 in Appendix B). The consultants noted that in innovative materials in which the student is expected to expand his vocabulary, his arena of thought, and his general experiences, the tests are important items that should be included since busy teachers may not have the time to prepare these adequately.

Applicability of the Materials

The applicability of the curricular materials to the grade level, to the stage of development of the student as evidenced by the previously introduced material, and to the general objectives stated in the materials themselves or in the ESP documents, was rated mostly as generally of good to excellent quality. (See adaptability column of Table 1.) Nearly 77% of the sets received a rating of 3 (good quality) or 4 (excellent quality). Particularly high applicability examples are included in 3, 5, 6, 10, 18, 19, 20, 22 in Appendix B. The level of the reading materials, the interest qualities, and the application to the lessons to be learned were generally apparent in these materials.

Some units, however, did not posses these same qualities and the problems were variable. Inappropriate vocabulary (examples 1, 2, 4, 7, 11, 12, and 23), inadequate phonetic approach (example 15), incorrect answer alternatives (example 21), inaccurate concept definition (example 20), and reading materials too difficult for the grade level (discussed in the section on readability levels). (d62, d77, d95) Glossaries or vocabulary study units were seldom included and these would have alleviated some of the problems noted. More detailed explanations would also have helped the teachers in the presentation of the materials.

General Quality Review

After studying the basic curriculum documents of the experimental program, the specialists rated the specific curricular materials in light of the expectations presented in the ESP goals. Half the sets produced through early 1975 were noted as needing considerable improvement or seriously deficient on the general rating. Extracting from their general reports, the specialists' concerns centered on:

- It is difficult to discern how these "piecemeal" units combine to meet the stated goals. (d95)
- Generally, there is too much "paper" or "seat" work indicated and not enough discussion, a teaching technique that would significantly improve the students' language arts abilities. (d77)

- While there are culturally relevant materials included, these usually tend to be locally specific and with little reference to the Mexican American experience. (d62)
- Although the design documents continually address the problems of individualization and small group instruction, there is little evidence of these being anticipated except in the best paced mathematics materials. (a71, d77, d95)
- Provision for higher order questioning and answering is infrequent and even when present, often has little specification, thus leaving the burden almost entirely to the already overworked teacher. (d95)

The consultants, too, noted that although these criticisms were directed primarily toward the materials of the first three years, that they may apply equally to those produced later since generally only the teacher guides were included for inspection. As one consultant remarked, "The teacher guides are absolutely necessary but the accompanying pupil materials are just as important. 'Indicating' an activity helps but the materials need to go further than that if implementation is to have its greatest impact." (d77)

In a similar vein, the consultants noted that there was little evidence of progression in the development of the materials, that is, a unit would be produced but there was rarely a followup revision that might have improved the unit. As one stated, "So much work was obviously involved in the production of some of these units...substantial improvement could have been effected with only a few hours of revision." (d77) "It almost appears as if when once produced, a unit was no longer considered to have any value and the writers then proceeded to produce still another unit, 'doing their own thing' rather than pick up where the last writer left off and improve the material or add further specification to it." (d95)

The consultants also pointed out some exceptions to these negative aspects of the curriculum work. Notable among the continual progress effort was the best paced mathematics materials which underwent revision after revision during the years they were employed in the program. "While still more improvement can be accomplished, the continuous revision of these [best paced math] units is exemplary of what an experimental, indeed, any program, should strive to achieve." (d95)

Commendatory work was also cited for those units that made use of already available materials (examples 5, 22) rather than invest time and other resources in "creating" totally new items. In fact, the bilingual specialists looked up the materials cited in example 22 and concluded that the writer of the guide had chosen wisely and "probably could not have produced material of the same quality in the time expended in finding the units in the citations." (d62, d66)

In summary, the curriculum specialists found the quantity of the materials to be "massive" and often of good quality or better. The utilization of materials from other sources was lauded, as was the effort expended in providing objectives and activities that would help the students learn. They generally found the units to be fragmentary rather than building to a complete curricular approach, however, and noted very specifically that the materials were important as early efforts, but that with the exception of mathematics, did not evidence the followup revisions that would have made them increasingly applicable to the target students and to the teachers that teach those students. They further called attention to the often inadequate quality of the Spanish language materials, finding them deficient when compared to those in English. The lack of a grades K-12 curriculum guide, sufficiently detailed in scope and sequence, as well as philosophy of education, was considered to be one of the factors that probably brought about the fragmentation, inadequate revision, and insufficient progress in the general curriculum effort.

Readability Levels Analysis

In addition to the general comments by the curriculum specialists on the relative difficulty of the materials for the intended students, the research team applied the Fry (36) formula to the English materials and the Spaulding (89) to those in Spanish to determine the readability levels. Two columns in Table 1 need to be examined in concert to ascertain the appropriateness of the levels, the columns labelled grade(s) and readability levels. That is, the readability level would be expected to approximate the designated grade for which the materials were produced.

Only seven of the 62 sets were seriously outside the intended level and four of these were in Spanish. The readability levels were generally within the range of the designated grades. Two aspects of this measurement are important to this analysis:

1. The students of the experimental schools program generally did not read at grade level as measured by standardized achievement tests.

An examination of the scores, stanines, and grade equivalencies of the experimental schools students showed them to fall increasingly further from their grade norms. (15, 107) The ninth grade mean grade equivalency, for example, was 6.4, nearly three years below level. That is, the majority of students in the ninth grade would have considerable difficulty reading ninth grade readability level materials and approximately a fourth of them would be unable to read them. With that perspective, many of the curricular sets included in the study would be deficient in this regard.

2. Samples of the materials utilized by the comparison classes were also examined and they generally measured about one year above those of the ESP produced/adopted materials.

Thus, while the ESP materials showed some need for lowered reading difficulty, they were, when compared to those used in the companion schools, superior in this regard. Notable differences included the English language mathematics materials for example, in which the grades 7-8 ESP student sheets averaged 8.1 readability level, and the text used by the comparison middle school averaged 11.4. That is to say, even though many of the ESP students could not read level 8 materials, that was considerably better than the level 11 materials provided the comparison students, who also read at about the same level as those in ESP. Unfortunately, the Spanish language mathematics materials were generally much higher in readability level than the students could read. An example of this disparity is included in example 12 of Appendix B, in which the sample materials for the teacher, if utilized directly with the primary students for whom it was intended, would be far above their comprehension capability. In fact, three Spanish speaking teachers (d83) volunteered in interviews that they did not understand the written materials in these Spanish units. The Cervantes & Bernal (14) study of Spanish reading ability would confirm that pupils, too, would have difficulty with this level. A glossary of terms would have at least partially alleviated the problem but none was included or referenced.

Summarizing, the English language materials produced and/or adopted by the experimental program were generally written at the grade level for which they were intended. The students from about third grade, however, did not read at their grade level, thus still further improvement was indicated in the readability levels of the materials. The units, however, were usually substantially below those utilized for the comparison students, and evidenced important improvements over what would have been provided in the regular program. The Spanish language materials did not share this same advantage; about half of them were measured to be one or more readability levels above the intended grade.

Cultural Relevancy Determination

The experimental schools publications stated that the materials would be made more relevant to the experience of the students by including substantial amounts of information about Mexican Americans, Mexico and other Latin American peoples and cultures, the San Antonio and Texas experience, and particularly, the neighborhood (barrio) experiences of the students. Utilizing the same guide as that adopted by the experimental program (c51) for determining cultural relevancy, and a refinement for studying Spanish materials (50), the research team examined the voluminous material for this quality.

Content about Mexican Americans was rare. Important exceptions included the curricular units c1, c38, c45, c46, and c47, in which material of considerable consequence was provided. Information on other Latin peoples was also rare except in the bilingual programs for kindergarten, first, and second grades, and this material included poems, stories, legends, songs, and dances. Some evidence of this type of material was also found in the middle school "inter-term" program of 1976 in which one of the instructors showed films, played and sang songs, and brought in Mexican dancers. (d79) Some material on Indians, Blacks, and Orientals was included in a few units.

The preponderance of the culturally relevant material encountered in the measurement was on the local experience. Those items in Table 1 with the ratings of 3 and 4 were almost entirely based on this local concept or included a great deal of information on that experience. Examples 6 and 20 in Appendix B are good samples of this type of inclusion.

Generally, then, the information included in the ESP statement of cultural relevancy, provided ratings of substantive use of culturally relevancy, provided ratings of substantive use of culturally relevant material in 31% or more of the material examined in 19 of the 62 sets. It should be noted, however, that 16 of the 19 were produced during the first two years of the program's life. The decline of emphasis of the cultural relevancy component's activities described in the Bernal, Jones & Cervantes study of educational change (9) was apparently also accompanied by a decline in the inclusion of such information in the curricular materials.

Teacher Perceptions of Materials

Implementation teachers' perceptions of the units provided one of the most important of the curricular materials study approaches. During the first two years, teachers were not interviewed directly on the curricular aspects of the experimental program, rather, the principals were asked about the teachers' reactions to the curricular materials (d5, d15, d20, d23, and d28). Samples of the teachers were interviewed in 1975 and 1976 (d29, d30, d31, and d32).

In 1972, 1973, and early 1974, the principals reported considerable enthusiasm for the curricular materials. The negative aspects mentioned by these officials tended to center on supplementary and audio visual materials that were not easily available to the teachers, on how "difficult" the Spanish materials were, and the inappropriateness of some of the Spanish materials produced in Mexico and Central America. Little criticism was voiced concerning the English language units. Some of the concerns noted in the section on the reviews by curriculum specialists were also repeated by the principals as "disturbing" teachers: single units rather than curricula, reproduction quality, and occasionally (only three times in the 18 principal interviews, the readability levels of the units given to the teachers).

During the 1974-1975 school year, the communications skills program was initiated and materials for about six weeks of instruction were provided. The principals stated that their teachers were concerned with the quality of the materials and were "afraid" that the materials for the rest of the year would not be produced. The teachers echoed these same concerns. The publication of a study of this program by Cervantes & Jones (18) gave far more detailed information on this project.

The interviews with the teachers and the principals during the fourth year of the project were generally favorable toward the ESP materials. In several subject matter areas and in several grades, nearly complete sets of materials were provided. The teachers saw this as an important step in curriculum development. The teacher guides were mentioned frequently as useful and "long overdue." The combination of the guides, plus the student study materials, and the pre and post tests, impressed the teachers. Although rarely mentioned by the teachers themselves, four of the six principals interviewed the last year reported that their teachers "liked the return to the basics" in the curriculum materials. (d41)

The interviews, then, showed some important variations over time: a period of considerable enthusiasm, approximately the first two years; a period of skepticism and reluctance to utilize the materials, mostly during the communications skills phase of the program; and during the last two years, a return toward favorable perceptions. The materials for one subject did not fluctuate during these periods - the mathematics materials enjoyed high acceptance during the nearly four years of their utilization in the middle and high schools. At only one point was there any criticism and that was during late 1974 and the complaints were not about quality but that ESP was not furnishing the student sheets for the best paced mathematics materials. This favorable attitude about mathematics was not universally shared by the elementary teachers. Few of them used the materials and their general comments centered on the amount of time it took to instruct the children individually as compared to small group presentation.

Related Studies of the Curricular Materials

Three types of studies were available for review in this investigation into the curricular materials of the Edgewood experimental program:

- Special studies of facets of the program materials by specialists on the external evaluation team (d55, d56, d66, d71),
- Specific studies into the formulation, acceptance, and apparent results of the program materials as reported in research papers by graduate students at local universities (d64, d68, d79, d85, d87, d94, d98), and
- An external evaluation of some of the materials, commissioned by the curriculum component, with an outside consultant (d82).

All of these provided valuable insights into the quality and acceptance of the curricular materials.

The first of the series, external evaluation team studies, relied heavily on case studies of particular materials with teachers providing much of the input. Summarizing these investigations:

- The social studies materials were generally accepted with enthusiasm by the teachers; they pointed out the relevancy to the local situation, high interest levels, and possibilities of obtaining participation from some students who generally remained isolated from the class discussions. Examinations of these qualities, as they appeared directly in the student or teacher materials, confirmed their existence. This was particularly true for the middle school materials.

- The mathematics materials experienced very high acceptance by the teachers and students; one of the most important comments by both groups was that when a student is in attendance, he can learn a "day's worth" of material, whereas under the traditional system, absenteeism made "catching up" nearly impossible. The arrangement of the materials confirmed this possibility. Many students commented that the ESP materials were "easy" and the teachers explained that the logical sequence of the steps involved in solving the problems and in moving from one level to another, plus the less difficult readability level of the explanatory material, caused the students to feel that the work was "easy."

- The teachers and students exhibited interest in the fine arts and humanities materials utilized at the middle and secondary schools. The use of Mexican American examples for these subjects, in both literature and in art, appeared to be the cause of the acceptance. A particularly voluble middle school student remarked, and his companions agreed with him, that "I never knew we [Mexican Americans] had written so much good literature and produced so much good art." (d85) In an interesting debate, observed during monitoring (d90), two groups of students argued intelligently about the relative merits of the "blue bonnet" paintings of Salinas* as compared to the more ethnic (Mexican American) materials in a mural they were preparing on butcher paper.

- Considerably less enthusiasm was noted for the language arts materials by both students and teachers. This was largely true whether the work was in English or Spanish. Both groups of respondents in the studies complained of the difficulty of the materials, of "not being very interesting," and of the poor quality (one student termed it "dumb") of the exercises in several sets of materials. Obviously, there are few students that enjoy the study of grammar, spelling, and some of the related activities in language arts so a part of the reaction was expected. Some favorable opinions were noted: first grade teachers and students reported liking their stories and lively discussions were evidenced in a number of classes in both first and second grades.

As a generality, the special studies by the external evaluation team confirmed the observations of the curriculum specialists and the perceptions of the teachers. The findings, with the exception of those concerning the communications skills program materials, were inclined to be somewhat more favorable than the findings of the specialists, possibly because the teachers had made important interventions in the materials, remodeling them to conform more to the necessities of the classes. No important differences between the two sets of studies appeared; usually the degree of enthusiasm and/or acceptance tended to account for what differences there were.

The special studies produced by graduate students of local universities also were generally favorable. Some of this would be expected, however, because frequently the graduate student had had some input into the formulation of the materials. This was especially prevalent in the studies of the middle school materials. Nevertheless, the negative aspects listed in these studies were exactly those listed by the curriculum specialists and by the teachers. Fragmentation was a frequent complaint. Lack of supplementary and/or audio visual materials was often noted. The favorable findings also nearly paralleled those of the other studies - higher interest, more relevant materials. One exception to the general acceptance was the study of the materials used in the General Equivalency Diploma classes; these were generally judged to be inadequate for the adult students and for the purposes for which the students were there - learn enough to pass the examinations required. The study of the comparison materials for this same type of class, all of which were stated to be "geared" directly toward passing the exams, were considerably more favorable than for those in the Edgewood School Plan.

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*Porfirio Salinas was a famous San Antonio landscape artist who specialized in painting fields of spring blue bonnets (Lupinus subcarnosus).

The curriculum development component of the Edgewood School Plan contracted with an outside consultant to study the communications skills materials. The report concluded that the early attempt to integrate math, science, social studies, and humanities into a language arts approach had not succeeded. "They have remained as discrete units sandwiched together but with little to cement their relationship." (d82, p. 27) The consultant was much more favorable toward the materials subsequent to the communications skills thrust, noting that the simplification of the approaches, the provision of more activities directly related to the objectives, and the elimination of the unrelated course material* had greatly improved these materials. These findings, too, coincided with those from the other studies. There were no important differences noted except the outside consultant study commented little on the Spanish language materials and the special studies had found them difficult for the reading levels of the students.

Viewing all three types of studies, then, the findings were quite similar. Some of the materials were judged to have significantly improved the possibility of student learning, some were described as being of mediocre quality, and some were commended as unusually well formulated. All three found deficiencies in the total approach, especially in the scope and sequencing of the materials, noting that a unifying plan, from kindergarten to seniors in high school, was still needed.

Overview of the Materials Assessments

The combined approaches to the study of the curricular materials produced/adopted by the Experimental Schools Project in the Edgewood school district, and by its successor, the Edgewood School Plan, produced very similar results. In summary, the findings were:

1. A complete scope and sequence curriculum guide was lacking.
2. With a few important exceptions, the materials tended to be mostly unrelated units.

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*The first communications skills packages "jumped" from language, to math, to science, etc., and frequently no bridge was provided between these elements (d99).

3. The materials produced during the first two to two and one-half years contained a substantial amount of culturally relevant materials; those after that contained much less.
4. The physical presentation of the materials, chiefly in reproduction quality and illustrations, needed considerable improvement.
5. The objectives, when presented, were usually somewhat difficult to measure as outcomes.
6. More than half the materials included pre tests and these were generally adequate, few contained post tests.
7. The materials suffered most in general applicability, sometimes written at a complexity level that made their comprehension and realization by students questionable.
8. The readability levels were almost all within the range of their intended grades; the students, however, did not read at grade level and thus some improvement was needed. The readability was more acceptable on the ESP materials, nevertheless, than were the commercial texts utilized by the comparison schools.
9. High interest was evidenced for the materials for some of the subject areas, particularly fine arts, humanities, and in some cases, social studies; language arts materials generally did not enjoy the same degree of this quality.

Some notable exceptions to the negative criticisms were very much in evidence: the best paced mathematics materials received high ratings in all of the studies in the series; the middle school materials seldom experienced severe ratings; portions of other materials were lauded in most of the investigations. The massiveness of the curriculum development effort was noted by many of the authors of the studies as both commendatory for its volume and at the same time, representing a limitation to the continuous progress, through revision, that might have been made in the production of higher quality materials at the conclusion of the five year period of the program.

Assessment of Staff Development

The Experimental Schools Project and the Edgewood School Plan component personnel for staff development, handicapped, internal evaluation, and family services conducted and/or arranged 31 known training courses during the five years of the program.* The reported number of participants was more than 3400 persons in a variety of activities that encompassed "one session" programs of two to three hours, to extensive courses carried out one evening per week for up to twelve weeks. Three types of studies were conducted on these training activities:

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*The known courses are listed in Tables 3 and 4; Table 4 contains those on which internal evaluation data were provided and Table 3 lists all other known courses conducted.

- participant perceptions of the presentations and utility of the training by the external evaluation team;
- participant perceptions by the internal evaluation team in conjunction with the staff development component;
- process studies of content and general applicability to stated goals of ESP and the activities being conducted in the other components.

The data for the perceptions studies were gathered at the end of each of the training programs, thus they were one point in time investigations. Although the numbers of sessions, locations, subjects taught, and participants were too great to permit followup research, it would have strengthened the study since the application of what was learned, or the lack of application, would have provided evidence of the effectiveness of the staff development. The process study attempted to fill that gap, extracting data from other studies to give general indications of what had happened as a result of the training.

Scope of the Training

The training embraced a wide variety of audiences, all defined as a part of the "staff" of the experimental program:

- parents of students and other community members
- middle and secondary school students
- parent aides and teacher aides
- elementary, middle, and secondary school teachers
- elementary, middle, and secondary school principals
- staff members of the experimental schools program.

While no actual count was made separating these audiences, the teachers and teacher aides made up the vast majority of those reached through the staff development activities. Students and principals were involved in only a few of the sessions. The more than 3400 reported participants included many who repeated two or more of the training activities, particularly the elementary teachers and aides, but the staff development component estimated that "at one time or another, nearly every teacher and aide was involved in the training" (d48). (See Table 2.)

Table 2: Summary of Courses, Sessions, and Trainees Reported by the Staff Development Component (1975-1976, 1976-1977)*

CYCLE	No. of Courses	No. of Sessions	No. of Trainees
I	25	72	422
II	13	32	220
III	3	nr	264
IV	10	nr	728
V	11	nr	762
ALL	62**	-	2396

*Extracted from Pol (e77).
**Some titles repeated in the different cycles.
nr=not reported.

The attendance, by actual count of the external evaluation monitors, of the training provided but not studied by the internal evaluation team, is recorded for each course in Table 3.* Since these counts were generally made at the final session, they do not necessarily represent the number of participants enrolled. The counts of attendance in the course listed in Table 4 total to 1048. Many individuals attended more than one course, thus the total attendance is not the number of individuals serviced.

The enrollments in most of the 1975-1976 and 1976-1977 courses were reported by the Edgewood School Plan (e77) and totalled 2396 (Table 2). Since some overlap in the time periods for which courses were reported in Tables 3 and 4, and not all the courses were included in the Edgewood School Plan study (e77), an exact proportion of trainees serviced during the early and late periods of the program could not be ascertained. It would appear likely, however, that the training in the last two years included more participants than the courses conducted during the first three years. The reported attendance figures were very high for some of the training, notably Initial Reading, Classroom Management, Personalized Instruction, and Oral Language for Parents and Aides. The drug prevention classes also attracted large number of participants. (Table 4)

The content of the training also encompassed a wide variety of topics (Tables 3 and 4):

- classroom management
- counseling
- Spanish
- teaching language arts, science, social studies
- general teaching methodologies including individualization of instruction and learning centers
- drug abuse prevention
- methods for community action
- leadership
- vocational orientation
- media
- taxes
- general philosophy of the experimental program

A high proportion of the training was in instructional methodologies; this topic accounted for 75% of the titles listed. Materials related to bilingual English-Spanish instruction was included in many of the methodology courses and, additionally, was supplemented by the teaching of the Spanish language to many teachers and aides. Late in the project's life, the last two years, special training was provided for counseling and teaching students about drug abuse. These were in conjunction with the state program for the implementation of the drug prevention program and included substantial time to the general counseling and management of students.

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*All training for which internal evaluation ratings were included; those without the evaluations are listed in Table 3.

Table 3: Summary of Staff Development Training, Attendance and Participant Ratings of the General Presentation and Utility: 1972-1977*

COURSE	Year	Attendance	Participant Rating***	
			Presentation	Utility
Bilingual Teaching	1972	37	1.22	1.42
Teaching by Objectives	1972	**	**	**
Parent Effectiveness	1973	22	1.60	1.42
Spanish Language Materials	1973	48	1.11	1.23
Individualizing Instruction	1973	57	1.32	1.08
Oral Language Development	1973	38	1.08	1.14
English as a Second Language	1973	62	1.47	1.86
Spanish as a Second Language	1973	23	1.42	1.53
Diagnostic Reading Instruction	1973	71	1.57	1.62
Individualized Mathematics	1973	26	1.81	1.83
Drug Education	1974	**	**	**
Orientation Workshop to ESP	1974	31	0.82	0.87
Curriculum Writers Workshop	1974	18	1.11	1.02
Parent Volunteers - Curricular Materials	1975	27	1.42	1.12
ESP Philosphy Workshops (5)	1975	132	0.90	0.62
Bilingual Instruction	1975	21	1.37	1.37
Vocational Emphasis	1975	37	**	**
Property Taxes	1975	82	**	**
Conversational Spanish	1975	18	1.82	1.41
Learning Stations	1975	27	1.12	0.96
Counseling - Communication Skills	1975	31	1.08	1.01
Parental Participation in Counseling	1975	22	1.41	1.27
Community Interaction Program (4)	1975	123	1.71	1.62
Team Teaching	1975	26	1.23	0.96
Development of the High School Student	1976	14	1.22	1.02
The Community College	1976	32	1.44	1.44
What's a Workshop?	1976	23	0.92	0.81
Media Workshop	1976	**	**	**
Classroom Observations	1976	**	0.68	0.41
The Process of Test Taking	1977	**	**	**
Developing Learning Centers	1977	**	**	**

*Training reported in Table 4 excluded from this list.
**Not monitored by external evaluation and/or not reported.
***Scale ranged from -2 to +2.

Several subjects were absent from the scope of the training; no titles specifically noted the social studies (although they were included in a minor way in some of the titles listed as communications skills), the humanities (although these, too, were treated at least slightly in some of the interdisciplinary orientations), health (except as related to drug abuse prevention), physical education, and the vocational subjects (except career orientations in one course). Although the cultural advocacy component had some input into a few of the courses, little was taught on Mexico, Mexican Americans, Texas, or San Antonio in the experimental program sponsored training.

Some other programs (state and federal bilingual, migrant, and rural-urban) conducted training and some of the teachers and aides in the experimental schools attended, especially those connected with the state bilingual certification program. The district also provided some assistance to teachers and aides to attend courses given by the local institutions of higher education.* Although these were not monitored, teachers and aides frequently reported that they had acquired knowledge about certain subjects or methodologies through courses they were taking or had taken at the universities.

Sequence of the Training

In most cases, sequencing of the training was difficult to ascertain. Two notable exceptions occurred (Tables 3 and 4):

1. The Spanish language courses, for the most part, moved in sequence from conversational Spanish to more complex studies of grammar, writing, and literature.

Some teachers moved through the sequence to improve their abilities to work with the Spanish speaking youngsters in their classes. Their work in these courses, plus those taken in programs offered by the state bilingual program and some local universities, helped many of them to pass the examination for the bilingual education certificate.

2. The drug abuse prevention program, co-sponsored by the experimental program and the Texas Education Agency, was deliberately sequenced to provide for a thorough coverage of the problem, information about drugs, and strategies to deal with students so that drug abuse would be reduced.

Each district in the state of Texas, by law, had to provide substantial training on drug abuse prevention and the appropriate counseling of students to avoid or reduce abuse. Most of the training was volunteer, however, and the widespread attendance at these meetings indicated the interest of the schools and the community in dealing with the problem.

Although not paced in an exact sequence, a series of training sessions beginning with an orientation to the Edgewood School Plan and followup activities about its implementation, could be perceived in the courses offered during about the last two and one-half years. Further, a number of these courses was repeated during the time period, thus offering the opportunity for participants to complete a sequence if they so desired.

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*It was reported by teachers that ESP provided assistance for some non-certified teachers to attend courses at local universities that would count toward their certification. No ESP document mentioned this aspect.

Table 4 : Summary of Staff Development Courses and Participant Ratings of Willingness to Attend a Similar Course, Applicability of Course, and Usefulness of the Training (1975-1976, 1976-1977)

COURSE	Number Respondents	Would Attend Another*	Applicability of Course*	Training Useful**
Initial Reading (Cycle I)	212	1.45	0.97	1.08
Classroom Management (Cycle I)	121	0.61	0.78	0.69
Intercommunication Values	56	0.38	0.40	0.51
Intercommunication Problem Solving	28	1.04	1.06	1.06
What is Language?	57	1.68	0.78	0.87
Spanish for Spanish Speakers	41	1.24	1.23	1.25
Science as Inquiry	59	1.08	1.02	1.04
Drug Prevention Education	62	1.69	1.36	1.51
Leadership (Cycle I)	42	1.69	1.43	1.43
Orientation	25	1.52	1.54	1.51
Personalized Instruction; Elem. (Cycle III)	205	1.36	1.23	1.14
Personalized Instruction; Secondary (Cycle III)	68	1.50	1.34	1.30
Leadership (Cycle III)	53	1.05	1.11	0.91
Spanish for Spanish Speakers (Cycle III)	45	1.36	1.30	1.35
Learning through Language	52	1.40	1.28	1.20
Higher Levels of Thought	37	1.17	1.27	1.22
Communications Skills	47	1.04	1.06	0.90
Interaction	65	1.58	1.20	***
Personalized Instruction; Secondary (Cycle IV)	66	1.41	1.08	***
Drug Abuse Prevention	87	1.64	1.36	***
Drug Prevention Program	96	1.80	1.46	***
Oral Language: Parents and Aides	156	1.55	1.53	***
Spanish for Spanish Speakers (Cycle V)	24	1.41	1.13	***
Drug Abuse (Cycle V)	64	1.56	1.22	***
Learning Through Language (Cycle V)	73	1.75	1.52	***
Higher Levels of Thought (Cycle V)	35	1.37	1.49	***
Leadership (Cycle V)	56	1.71	1.44	***

*Extracted from Pol (e77); scale 0 to +2.

**Summary rating from external evaluation questionnaires; scale -2 to +2.

***Not monitored by external evaluation.

While not every course was offered in each of the cycles of training, most of them were and the attendance might suggest a fairly comprehensive coverage of the intended audiences.

A shorter sequence was also deliberately carried out in which the family services component staff members conducted orientation to their new community interaction program in 1974, workshops to determine the needs of the community for the program, and determinations of how best to implement that project. The training that followed was almost entirely for the Graduate Equivalency Diploma program and those are discussed in a later section of the present report.

The staff development component experienced a great deal of difficulty in sequencing the training, especially for teachers and aides, since the turnover of these instructional staff members was very large. The 1973-1974 turnover rate for all ESP schools was 44.2% but it varied in individual schools from about 21% to 68%. (17) Although teacher turnover was not studied thereafter by the external evaluation team, the monitoring conducted of the treatment teachers appeared to indicate that the rate had not changed substantially. (80) Faced with the need to conduct beginning orientations and courses for the new teachers, along with the desirability of helping those who remained in the system to progress to higher levels, was a continual problem for the component. (d10, d18, d35, d45)

Perceptions of Training Participants

The external evaluation team monitored a large proportion of the training that was conducted during the first four years of the experimental program. Opinionnaires were used (Appendix A1) to obtain the trainees reactions to the training. Additionally, the internal evaluation team, in conjunction with the staff development component, carried out studies, also via opinionnaires, of the training conducted during the last two years of the program. Two ratings of the external evaluation studies are included in Table 3, the opinions of the participants on the general presentation of the material in the courses and the applicability of the material to their jobs in the schools or related to the schools. Table 4 contains the ratings by the participants on two of the fifteen items included in the internal evaluation studies, "whether or not they would attend another course similar to the one they were attending," and "usefulness of the training to their school situation."* Both ratings used a five point scale, +2 to -2; the average ratings of all participants were calculated for each of the courses.

The participants, reported in Table 3, generally rated the presentations, that is, the way the courses were being taught, between good and very good. These tended to center at about 1.25, a quarter of the way from good to very good. Parent Effectiveness Training, Diagnostic

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*The entire instrument used by the internal evaluation team is included in Pol (e77).

Reading Instruction, Individualized Mathematics, and Conversational Spanish were closer to very good (above 1.50). Only three of the training programs were rated as less than good: Orientation Workshop to ESP = 0.82, What's a Workshop? = 0.92, and Classroom Observations = 0.68. The first two were primarily conducted with parents and community members and the third with teachers.

The participants' perceptions of the utility of the training generally parelleled their perceptions of the presentation quality. Differences of more than a quarter of a point occurred in a few cases. Utility was rated a quarter of a point or more higher than the quality of the presentation on English as a Second Language. Utility was rated lower than presentation quality on Individualizing Instruction, Parent Volunteer Curriculum Resources, ESP Philosophy Workshops, Team Teaching, and Classroom Observations.

The participants studied during the last two years generally gave the opinion that they would attend a similar program to the one in which they were involved, indicating that the presentation quality approximated the good to very good rating of the external evaluation study. Twelve of the ratings on this item were at or above 1.50, noting high acceptance of the type of training offered. (Table 4) Those with lower than a 1.00 rating (agreed to undecided) were Intercommunications Values and Classroom Management; the first was quite low, 0.38, near the undecided reply category.

The ratings of the participants on the applicability of the courses usually approximated those of whether or not they would attend another similar course. These equalled or surpassed the 1.50 value only three times on applicability: an Orientation workshop, Oral Language for Parents and Aides, and Learning through Language given in Cycle V. Only three of the applicability ratings were below the 1.00 mark: Classroom Management, Intercommunications Values, and What is Language? The latter was particularly interesting because the participants gave that workshop a very high rating on presentation (1.68) and a relatively low rating (0.78) on applicability.

The findings of the external evaluation team on usefulness of the training closely paralleled the results obtained by the internal evaluation investigation (Table 4, last column). The greatest disparity was .16 of a point and most were much less than that.

In general, then, the participants, with a few exceptions, gave substantial support to the training they received. They perceived utility to the material being taught and they gave the opinion that the presentations were usually good or better. The findings of the internal and external evaluation teams were very similar.

The Process of Staff Development

The needs for staff development, according to the ESP Final Plan (31) and the early documents outlining the tasks (e4, e5, e6, e7, e10), were many and complex. About a fourth of the teachers were not certified or were not certified in the area in which they were teaching, few bilingual teachers were on the staffs of the primary grades and most that were there had not been trained to teach bilingually. Most teachers had been trained to teach in the traditional approaches to education. The teacher turnover rate was large, as already discussed in this report, and showed little indication of abating.

The staff members engaged in the training activities produced an early plan for their work; that apparently was not accepted by the National Institute of Education and it was reworked twice more. This process occupied nearly 18 months of the beginning of the program. During that period, little money was available for staff development and those courses conducted were done so primarily with the staff members available and with few materials.

The component, during the first two and one-half years of its operation, appeared to have suffered from inadequate funding. The complaint was voiced in every staff development component report during that time, was reiterated by the principals as one of the weaknesses of the program, and was discussed repeatedly in the ESP staff meetings. The causes for the curtailment were not easily discernible, except for the lack of approval of the early training plan. In two interviews conducted early in 1974, the respondents noted that "both the district and the National Institute of Education are of the opinion that our staff development plans are too grandiose." (d18, d19) Although the board and administration interviewees did not state that directly, the administration, later that year, expressed some concerns about the "shotgun" approach, as one put it, to the training. (d21)

A 1974 document (e13) and three 1975 reports (e17, e18, e19) laid out substantial changes for the Edgewood School Plan work and integrated the staff development needs into them. At about the same time, the family services component developed a new thrust and training was an integral part of that program. (e27 through e35) Subsequent to these two efforts, a substantial increase was noted in the training offered in the experimental program and the complaints about lack of funding nearly ceased, even though the increases in the budgets were not unusually large thereafter.

It should be emphasized, however, that staff development did not discontinue its functions during any of the scarcity periods described. Some training was provided almost continuously. This was particularly true during the academic year, September through May. Summer activity was generally lighter than during the school year, both in the early and late periods. The members of the staff development, family services, and curriculum development components managed to address at least some of the training needs throughout the project's five years.

One type of training, poorly documented by either the external or internal evaluation teams, was the individual and small group work with teachers and aides in the schools. Particular needs for training, especially in connection with the implementation of new materials and approaches, were frequently addressed in these sessions that took place during teachers' free periods, immediately before and after school, and when special arrangements could be made. The external evaluation team observed many of these in action during 1973 and 1974, and some into early 1976. The internal evaluation team and some of the program's reports mentioned meetings with small groups of teachers and aides on such diverse topics as classroom management, teaching Spanish reading, establishing the system for the contract reading program, assistance in the preparation of supplementary materials and post tests, and the implementation of several new materials.

While no assessment of this training could be made because of its diversity of audiences, locations, short time periods, and because they were not included in the regular training schedules, some benefit would be presumed. Documentation of this type of training in one subject field was obtained, that of the training for the use of the best paced mathematics materials in the middle and high schools. Interviews with these teachers and the classroom monitoring and observations, continually reported that individual and small group work was frequent and useful. (d30, d31, d54)

Staff development, then, was a nearly continuous process during the five years - 1972 to 1977. Early difficulties with plans, funding, and scarcity of staff appeared to have diminished the work in that field but some activities continued regardless of the difficulties. At about the midpoint of the program, integrated plans for curricular materials and their implementation included training for the teachers and aides. The family services component embarked on their new community interaction program and it, too, included provisions for training. From that point until the end of the last school year of the project, a substantial increase in training was observed. The participants generally felt they were receiving benefits from the courses that were offered and many of them enrolled in several courses over a period of time, a good indication of acceptance. The program, then, while showing some weaknesses in the scope and sequence of the training, provided a valuable adjunct to the work of the other components.

Assessment of Instruction

Instruction in the Edgewood School Plan embraced a wide range of activities. While the main target of this experimental schools project was the grades K through 12 classroom experience, the out of class experiences provided, primarily through the family services component, the credit and degree training of adults, and the non credit training of community members were integral parts of the program.

The final funding document of the program and nearly every interim refinement of that plan, emphasized bilingual and multicultural education as a goal in itself as well as an aid to enhancing the attitudes and academic achievement of the participants. The inclusion of this factor, then, by utilizing Spanish as a medium of instruction, and in teaching that language, was likewise an important factor in the external evaluation design.

In addition to the bilingual/multicultural aspects of the program, each activity was to be taught in such a way that the characteristics of the individual would dictate the approaches to be used in his education. Individualized and small group instruction, taking students' experiences into account, and tailoring each facet of implementation to improved performance of the participant were to be means toward helping each person strengthen his abilities to compete in the social, economic, educational, and political arenas and thus, in turn, enhance community life.

All of the implementation components of the experimental program - curriculum development, staff development, handicapped (later supportive services), cultural advocacy, family services - plus certain activities of the internal evaluation component, were to be mobilized to realize these goals. The present report, while not organized into sections by component activities, had incorporated their work into the analyses and discussions as appropriate to the type of implementation.

Classroom Instruction in Grades K-12

The experimental program planned two major types of intervention in the classroom process, aside from the curricular materials to be introduced. The first of these interventions was to be an improved teacher-student relationship and was to be achieved through the training of the teachers. This training, as shown in the assessment of staff development, was offered to all teachers and aides in all grades; a high proportion of the instructional staff availed themselves of at least some of these opportunities. The external evaluation team measured the interpersonal styles and emotional climate of the classrooms during the first four years of the program.

The second type of intervention to be made by the experimental program staff was to teach and facilitate the improvement of the instructional methods utilized in the classrooms. The objective of this thrust was to achieve open classrooms in which innovation would prevail, in which individualization and small group instruction would predominate, and in which ultimately, each child's learning styles would be utilized in helping him to achieve more. These, too, were measured by the external evaluation team, using the Dimensions of Schooling (35, 79) as a part of the revised OScAR 2a (72) called the M/OScAR (74) during years three and four of program implementation. Expert teacher observations were a part of the design in order to obtain descriptions of the exact events transpiring in the classes. Perceptions of three groups were incorporated:

- teachers through self administration of the Dimensions of Schooling Questionnaire
- students through the My Class and Learning Environment inventories (4);
- experimental staff members through interviews and examinations of their reports and other documents.

Findings reported by an internal evaluation investigation in a 1977 publication, Classroom Management Checklist (e78), were introduced to supplement the ESP staff members' perceptions since it included observations by the experimental schools principals in its design. Information from two earlier ESP reports (e48, e51) was incorporated as appropriate to the discussion.

Teacher Classroom Behavior Observations*

The emotional climate measure, pupil/teacher interactions, was an abbreviated version of that included in OScAR 2a and was used throughout the seven semesters of observations. The individual scores were mostly positive; negative climate scores generally accounted for less than 15% of the observations. No significant differences were found between the treatment and comparison schools' elementary, middle, or secondary classrooms. A trend of increasingly positive scores was exhibited for both groups across the observations and their patterns were parallel. It seemed apparent that programmatic development in the two groups of schools, ESP and comparison, although different in several respects, had not resulted in different emotional climate scores.

Teacher interpersonal style, an examination of the supportive and reproving aspects of the classroom process, likewise showed positive scores in nearly all observations. There were no important differences between ESP and comparison. A trend of increasingly positive scores was found from the fall 1974 to the spring 1976 observations in the elementary classrooms, which was present for both groups of schools. The trend was not present for the middle and secondary schools. Again, differences in program were not associated with differential results in teacher interpersonal style between the treatment and comparison schools.

Teacher emphasis on the four skill domains in the language arts (listening, reading, writing, verbal) remained quite constant in both groups of schools across the observations from fall 1974 through spring 1976, the only semesters in which this measure was included in the instrument. Instructional emphasis on listening, reading, and writing occupied most of the class time; verbal participation by the students occurred in distinctly minor amounts in the middle and high schools. In the elementary schools, instructional emphasis on listening, reading, and verbal skills occupied most of the classroom time. Increased emphasis on this latter domain, as planned in the ESP communications skills project during this period, did not appear to have altered the classroom pattern.

The experimental schools project had also proposed to increase the use of Spanish in both instruction and classroom management, and at the same time to strive for improvement in English. Measurement of language usage showed no important differences between ESP and comparison classes at the elementary school level across the years and at the middle school level for the spring 1976 semester. Although English predominated, there was a considerable number of Spanish only and bilingual classes observed. The proportion of teacher/student and student/student English non-instructional interchanges in the ESP high school, however, was significantly greater than in the comparison high school in 1976. On the other hand, student/student bilingual instructional and Spanish non-instructional interchanges were significantly more frequent in the comparison high school classes than in the ESP classes. That is, there was more Spanish spoken in the comparison than in the ESP classes.

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*This section was extracted from Potter, Jones & Cervantes (80).

The dimension of schooling measures accounted for a majority of the differences found in the study and most of them were at the high school level and from the spring 1976 data. In general, the results at the three levels were:

Elementary: Both the ESP and comparison classrooms were organized predominantly around subgroups of pupils.

- Attention to the class as a whole occurred rarely whether in teacher focus, role, or assignment of materials.
- ESP elementary teachers increased their attention to individuals during the period and significantly more than comparison in spring semester 1976; the frequency of occurrence, however, was still far below that of work with subgroups.
- Using the teacher as a resource person, though much less frequent than the teacher as a presenter of lessons, was significantly greater for ESP than comparison classrooms in spring 1976.

Middle: ESP and comparison middle school classrooms were nearly alike on study locations, teacher focus, and teacher role.

- The three measures showed "class as a whole" as the primary focus with some attention to subgroups.
- In selection of materials, however, the ESP classrooms were significantly higher for attention to individuals and subgroups than were the comparison schools.

Secondary: Classrooms in the ESP and comparison schools were not different on where study took place; both predominantly used "at the student's desk." The other dimensions showed variation.

- In both high schools, most assistance came from the teacher; in spring 1976, that occurrence was significantly greater for ESP.
- A dual move toward openness as measured by this instrument occurred in spring 1976; the use of the teacher as a resource person was significantly greater for ESP than comparison, and concomitantly, the role of the teacher as a presenter of planned lessons was significantly lower in ESP.
- Teacher focus on individuals was significantly more frequent in ESP than in comparison in spring 1976. The selection of materials for individuals was significantly greater in ESP; selection of materials for the class as a whole was significantly lower in ESP.

Some increases, then, were observed in the individualization methodologies in the ESP middle and high schools, fewer at the elementary level. Except for these changes, the experimental and comparison classes, as observed over this period, were much alike on most measures.

Expert Teacher Observations

Two sets of observations were conducted by the expert teachers, one in spring 1975 and the second in spring 1976. Separate reports were prepared by them on each of the teachers monitored and then summary reports were prepared for each level of schooling and for specializations receiving particular treatment in the experimental program. A similar sample of comparison classes were also monitored by the teacher experts. The present report synthesized the observations.

Elementary Level

Almost all the elementary classes observed, whether ESP or comparison, were conducted with small groups within the class. Whole class activities were limited almost entirely to art, music, recess, discussions of school and local interest topics, and some management of movement to and from the classroom. Even discipline activities were generally handled within subgroups. No important differences were found between the experimental and comparison classrooms on this aspect of instruction.

Some individualization was observed in both the elementary experimental and comparison classrooms. In ESP, this was limited to contracted reading work in eight rooms in 1975 and eleven rooms in 1976, and to best paced mathematics activities in two fifth grade rooms each in two schools. In each of the four cases, subgroup instruction preceded the individual work. Although not observed, four other teachers noted in spring 1976 that they were using the best paced mathematics materials for the "fast" students in their classes. Individualization in the comparison elementary schools was limited to some special activities in several subjects. Two students were preparing social studies notebooks, unique to them, in one sixth grade room. In eight rooms, students were reading stories assigned to them individually; in every case, the students were classified by the teacher as "unable to read on the level of the other students" and so were working on easier materials.

The use of Spanish was varied in both the experimental and comparison classrooms. In a large majority of the classes observed, 63% in 1975 and 66% in 1976, English was the primary language of instruction and study. Within this group of classes, small amounts of Spanish were spoken in explaining instructions for classwork, in managing the class, and occasionally, in short social encounters among students and between the teacher and the students. Other than these variations, the fourth, fifth, and sixth grade classes were observed to use only English.

Substantial amounts of Spanish were utilized in instruction in the kindergarten through second grades in 1975 and through third grade in 1976. In every case but three, the classes were designated as bilingual and were included in the state, Title VII, and ESEA programs in the comparison schools, and in the Edgewood School Plan program in the four experimental schools. Practice in oral/aural activities, discussions of social studies, learning to read in Spanish, and in three separate classes, learning mathematics, comprised the Spanish spoken except for some pupil management. The observers pointed out, however, that even in these classes, Spanish was not spoken exclusively. The experts noted a variation of English usage as at least "some" in most classes and "more than half the time" in the rest. The teachers reported that "many students in the class cannot function entirely in Spanish and I have to explain some things in both languages."

The observers reported that a wide variety of teaching techniques were used in the classes and in most cases, they characterized the instruction as "good" to "excellent." In both 1975 and 1976, some exceptions in quality of teaching were documented. "Too much paperwork and not enough recitation and discussion" was cited frequently, and the observers usually coupled this notation with comments about the lack of fluency, the use of incomplete sentences, and in a few cases, severe communications handicaps. Eleven observations in 1975 and fourteen in 1976 were made about students who could verbalize their reading materials but could not answer "simple questions about what they had read, indicating vocabulary and comprehension problems." These cases were nearly evenly divided between ESP and comparison.

"Inappropriate phonics techniques" were pointed out for five classes (four English, one Spanish) in 1975, seven (four English and three Spanish) in 1976. "...basic letter drills still being performed in March when they should have been completed last fall," "excessive phonics and little reading," and "incorrect application of phonics to words (teacher included father in a list of short vowel words in one cited example)" were the more important notations. More serious, according to the observers, was an incorrect teaching of consonants in both English and Spanish: four cases in 1975 and six in 1976. Since the error was the same in every case, the observers detailed the problem. The teacher pointed to a consonant and the following exchange occurred, nearly the same in the two languages:

"What is this letter"	"Que letra es esta?"
"Be." [answer]	"Be." [answer]
"Good. And what sound does it make?"	"Bien. Que sonido hace?"
"Bə." [answer]	"Bə." [answer]
"Good."	"Bien."

The sequence was the same in both languages. In both, the observers cited the sequence itself as a "fundamental phonics error; it is appropriate to use the normal name of the letter, as was done in both English and Spanish, but it is incorrect to assign it a sound which includes a vowel when the vowel is not present." While the schwa sound (ə=schwa) is, of course, common in English, it should not automatically be coupled with a consonant, they stated. "The error is worse in Spanish for the schwa sound does not exist in that language." In every case where this sequence was documented, the observers also noted that the children were having considerable difficulty with reading and had not progressed to the point they should have been for that time of the year (spring), even if the classes were composed primarily of "slow" students "and there was no direct evidence that that was the case." The incidences occurred nearly equally in ESP and comparison classes.

Few discipline problems were cited in elementary classes and those that were noted were termed "minor." The classroom climate was almost invariably characterized as "warm" or "friendly." A few cases of "lack of discipline" were listed and "too much noise" was marked once. "Too much regimentation" was also documented once. In their overview reports, however, the observers described the environment as "conducive to learning."

Multicultural education was encountered in three kindergarten, two second, three third, and one fifth grade classes. The content included songs, poems, riddles, stories, and in one case, a dance. These were termed "Mexican or Mexican American." The San Antonio and Texas experience was listed nine times in each of the two years. Since the observations were primarily made during the morning hours, in order to assure seeing the language arts taught, and since the culture activities are often included in the afternoon schedule, the observers described the incidences as "probably substantial" for the K through 3 grades. No comment was made about the upper grades.

In summary, the observers found generally "good" teaching quality, learning environments, and attention to the cultures of the children. Some exceptions to this quality were noted in the teaching of the language arts and these were listed as "needing attention and sometimes serious." They described the general status as "about like you would expect or somewhat better" and saw no important differences between the ESP and comparison classrooms.

Middle Level

The expert teacher observers produced three types of reports on this level: the classroom observations, a study of the team teaching at the experimental middle school, and a special study of the integrated humanities program. Additionally, in a study of the best paced mathematics program, both the middle and high schools were included.

The observers reported that the unique organization of the teachers and students into interdisciplinary mini-units within the school appeared to allow for a greater amount of identification for those involved than was apparent in the comparison middle school. That is, since the interactions during nearly every period were with essentially the same peers, strong feelings of cohesiveness were expressed by the pupils. The ease with which they consulted each other in their cooperative tasks seemed to substantiate this characteristic. The observers particularly cited what they interpreted as an almost stress free environment, one in which both pupils and teachers had developed a system of interchange of information and control of unwanted behavior. Few incidences of discipline problems occurred through the many observations conducted in the two years and these were primarily in one subject. This was in sharp contrast to the "rather common disturbances and teacher corrections" encountered in the comparison middle school.

The observers noted, however, that the teachers were not entirely satisfied with the team arrangement. "The teachers of the team do not spend enough time together; some teachers write most of the curricular materials we use; we tend to get 'separated' in our teaching so that the integration we had hoped for doesn't often happen" were the most frequent complaints. Nevertheless, the teachers expressed the opinion that the system was better than the totally independent arrangement in other schools where they had taught. One was quoted by an observer as saying, "We still need to improve the system but it is generally working." The observers agreed with this statement, noting that "despite some weaknesses, the team system appears to give more satisfaction to both teachers and students than does that utilized [each teacher teaching independently] in the comparison school. There is a camaraderie here that is unusual for middle or junior schools." (d89) The observers reported favorably on the team teaching effort in both monitoring years, spring 1975 and spring 1976.

The middle school best paced mathematics program was in its second year at the time of the first set of observations and in its third year during the second set. The mathematics observer reported that the students worked well in the individualized program, obtaining their folders without unusual delay, seeking their work sheets from the appropriate files rather skillfully, and generally conducting themselves as though thoroughly "at home" with the program and the materials. Peer assistance was frequent; teacher assistance was carried out in a helpful way. The first year, the teachers reported having difficulty obtaining enough student work sheets but this problem appeared to have been largely solved the second year. The observer reported that there appeared to be less involvement of the mathematics teachers in the team effort, apparently because their materials were already prepared, and except for some additional practice sheets needed for some units, no additional work was needed. Too, mathematics was seen by the teachers as a separate subject, one which required little integration with the others.

The English (communication skills) and social studies were reported by the students and teachers as "progressing well" in both years. In both subjects, the students worked mostly in small groups, developing a wide range of projects and preparing class presentations. Discussion was reported as frequent and the projects examined were described as "mostly creative and interesting." Some students also worked independently, generally completing work sheets for their folders, preparing individual presentations, and reading materials needed for the projects or the folders. Little culturally relevant materials were reported in the communications skills classes observed but most of the social studies included at least some discussion that linked the material under consideration with local and Mexican American themes.

The humanities appeared to have more difficulty in holding the students' interest, in achieving efficient use of time. Restlessness and some discipline problems were recorded in every observation. Nearly 75% of the observations, in both years, included notations that "small groups, usually girls, tended to sit together and gossip rather than work on the assignments." The observers noted frequent admonishments by the teachers to "get to work" but that little resulted from these small groups. Nevertheless, some good work was also reported, particularly in art and music. Individual drawings, a group produced mural, illustrations of local artists and their works, and some interesting discussion about those artists were recorded. In three cases the observers noted problems with Black students and one commented that "the concentration of Mexican American personalities may have caused some disaffection among the Blacks." Several incidences of integration with both communications skills and social studies were observed, linking poetry with English expression and with the historical period being surveyed in social studies; discussion of "Chicano versus American" art expression in relation to social and economic conditions; relating religious art of the 1800s to the predominance of Catholicism among Mexican Americans of that period.

Generally, then, the observers reported, both from their individual class monitoring and special studies, that the middle school program was quite well organized, appeared pleasing to most teachers and students, and that the degree of participation of the pupils in the class activities was much higher than in the comparison middle school. Mathematics, English, and social studies were judged to be operating at efficient levels with most of the class time used pleasantly and apparently profitably. The humanities seemed somewhat less efficient but still some good work was reported. Integration among the four subjects was not, as nearly as the observers could tell, very high but some cases of obviously related work were seen. One observer summed up the two years of observations by stating, "I have taught many years in the middle and junior schools of San Antonio and I found the experimental program generally superior to anything I had seen previously, particularly in the participation of the students, the lessened degree of discipline thought to be typical with youngsters of this age, and in the freer working relationships between teachers and pupils." (d89)

Secondary Level

The observations for the two years did not differ much between them; the classes appeared to have mostly stayed the same. And with the exception of mathematics in the experimental high school, there were few differences between experimental and comparison schools' classes. Seven incidences in 1975 and nine in 1976 showed some measure of individualization. The observers pointed out, however, that a general explanation of a topic was given at the beginning of the class, then students organized themselves into "committees" working on projects and that these in turn were later dissolved into individual work. Thus in every class except mathematics (to be described later), the few exceptions to the general class approach were combinations of whole class, small group, and individual work. It should also be noted that some of this same combination occurred nearly as frequently in the comparison high school: five cases in 1975 and eleven in 1976.

All mathematics classes in the experimental high school were instructed through the individualized mathematics program in both years of observations. No exceptions to this were found. Student work sheets were sometimes scarce in 1975 but not in 1976. The materials were best paced in 1975, arranged according to increasingly difficult materials and problems in each of the thematic areas included for the particular year. Pre and post tests were used to determine when sufficient learning had taken place and thus the student could move forward to the next unit. In 1976 the materials were spirally arranged, with each topic carried out to a specified level. When that level was reached, the student turned to a new topic or mathematical concept. Later in the sequence, the materials again brought up the same topic that the student had just completed, this time carrying it to a still higher level. This was reported by the teachers to be particularly helpful in the ninth grade since students were not expected to be able to master topics as complex as would those students who continued on into additional mathematics courses. The mathematics observer judged the work by the students to be satisfactory both years commented that students who had been absent some portion of the previous period appeared to be able to continue their work appropriately. She noted that this was not the case in 1975 in the comparison school in which mathematics was taught by the traditional method. She also noted that in the experimental program, most pupils used most of their time at work while some students in every comparison class did little or nothing.

In 1976, the comparison school had adopted an individualized commercial program. The observer commented, however, that half or more of each class was taken up with a presentation on a specific topic and that the students then worked individually but nearly always on the lesson for the day. Only a few students were working on other units and the teachers reported that these had been absent for some time. Thus, the new program was not being utilized as a completely individualized sequence of units. Nevertheless, the teachers reported better progress for the students under the system and the observer found the students working most of the time, a considerable change from the previous year.

The observers found the English language to be the primary vehicle of instruction both years and in all subjects. Some student to student interchanges were noted in Spanish and an occasional explanation or class management exchange was also observed. No differences were found between the experimental and comparison classes in this regard.

In summary, the two secondary schools' classes were much alike except for mathematics and although substantial differences were found in that subject in 1975, by 1976 the comparison school had also moved toward individualization and these classes were similar again. The experimental classes, however, were still judged to be better organized and more profitable in terms of the amount of time students were occupied directly with their studies.

Internal Evaluation Findings: Spring 1976 to Spring 1977

The internal evaluation unit in the experimental program developed a classroom management check list, designed, according to the publication of the results (e78, pp. 3-4), "to measure how effectively the Communications Skills Program was being incorporated in the ESP classrooms," although it more directly related to the earlier produced personalized instruction model (e17) than to language arts. The items were set up to note the use of several individual, small and large group, and class as a whole practices, as well as recording some information about materials and assessment. ESP staff, graudate students, and principals completed three sets of observations: spring 1976, fall 1976, and spring 1977. Each observation took "ten to fifteen minutes" (e78, p. 5). "Model" teachers had been trained and were used as "controls" for those who had not been so designated or trained.

The study found (e78, pp. 67-72) "An apparent significant trend...over the ...periods suggesting a diversifying of grouping...with the teacher interacting with individuals, small groups, large groups, and the class as a whole...the trend is encouraging [but]...very little difference is observable between model and non-model teachers. These findings suggest that any trends or changes evident...may not be a part of the project... but may be due to other phenomena."

Further, "...a variety of methods [was] not employed and English remain[ed] the dominant language...even in the lower grades." The author also reported that learning centers tended to decrease across the three observation periods. The report's general conclusion was that "model and non-model teaching teams exhibit[ed] similar behavior and the experimental 'treatment' [was] not really any different [from that in] the 'control' classrooms."

Teacher Perceptions of the Instruction

The Dimensions of Schooling Questionnaire (35, 79) was used to probe teachers' perceptions of their classroom practices in 1974 and again in 1976. Those from 1974 were reported in detail in a previous Development Associates publication (18) on the communications skills project of the Edgewood School Plan. The results of the two administrations were so similar (less than 5% variation) on some of the measures included in the instrument that their results are simply summarized in the present report:

- The teachers in two experimental and one comparison elementary school perceived their pupil assessment procedures to be about evenly divided among observations of student work, classroom developed tests, and standardized tests; a third experimental school primarily used school developed and standardized tests. Both middle schools used observations, classroom developed, and school developed tests about evenly; little or no use of standardized tests was reported. In both high schools, classroom developed tests predominated but the experimental teachers noted some use of observations.
- The timing of pupil assessments varied a great deal in both the experimental and comparison schools and among the three levels; no distinct pattern emerged.
- Class and subgroup focus for assessment procedures occurred most frequently; two ESP elementary, the middle, and the secondary experimental schools reported some usage of tests focused on each student while the other ESP elementary and all comparison schools reported negligible individual student focus for testing.
- Teacher involvement in the development of materials for their classes was varied among both the experimental and the comparison elementary schools; middle and secondary experimental teachers reported "great" involvement while the comparison teachers at these levels reporte "little" involvement. Student involvement in the development of the teaching materials was "little" in all the schools.
- Student involvement in the selection of the materials they studied in class was varied among the schools, according

to the teachers, but there were no important differences between ESP and comparison.

- In the teaching practices, subgroups were the major focus of attention in the elementary classes; in both 1974 and 1976 the percentage of attention to individuals in the classes was reported higher in experimental elementary than comparison schools. Class as a whole predominated in the comparison middle and high schools but the experimental teachers reported more attention to subgroups and individuals.

- According to the teachers, assistance to pupils came from them, teacher initiated student to student assistance, and student initiated peer assistance about equally, with the exception of one comparison elementary school in which teacher assistance was almost the exclusive mode.

Thus, in eight of the ten measures in this instrument, no important shifts in classroom practices had occurred across the two year period. In the other two measures, however, some noticeable changes were perceived by some of the teachers.

The teacher role practices measure included four alternatives: teacher as a presenter of planned lessons, teacher as a discussion leader on teacher initiated topics, teacher as a discussion leader on student initiated topics, and teacher as a resrouce person. Teacher as a presenter of planned lessons was reported as the major role in the comparison high school in 1974 while teacher as a resource person was reported highest in the experimental school. In 1976, the comparison teachers perceived themselves utilizing the resource person role much more heavily than presenter of planned lessons. (Table 5) The experimental and comparison high schools were similar in 1976.

Table 5: Distribution of Perceived Teacher Role Practices in the Experimental and Comparison High Schools: 1974 and 1976

Teacher Role Practice	Experimental Average % 1974	Experimental Average % 1976	Comparison Average % 1974	Comparison Average % 1976
Presenter of Lessons	10	12	58	11
Discussion: own Topics	13	13	14	15
Discussion: Student Topics	29	27	6	11
Resource Person	48	48	22	63

Neither the elementary nor middle school teachers' perceptions changed appreciably on this measure across the two years. The ESP elementary teachers divided their roles across all four alternative; the comparison teachers marked teacher as a presented of lessons highest. The ESP middle school was seen as emphasizing teacher as a resource person both years; the comparison teachers indicated a roughly equal division across all four roles.

Student pacing practices also were perceived to have changes substantially in the comparison high school between 1974 and 1976, reflecting the iniation of the learning packets, designed to be used individually. In 1974 the teachers in that high school perceived class as a whole pacing to occupy 73% of the time and individually prescribed pacing at 21%. (Table 6) The two types of pacing almost exactly reversed in 1976: class as a whole 20%, individually prescribed 70%.*

Table 6: Distribution of Perceived Student Pacing Practices in the Experimental and Comparison High Schools: 1974 and 1976

Student Pacing Practice	Experimental Average % 1974	Experimental Average % 1976	Comparison Average % 1974	Comparison Average % 1976
Class as a Whole	11	13	73	20
Subgroups	5	7	5	5
Individually Prescribed	52	48	21	70
Student Sets own Pace	32	32	1	5

The elementary experimental schools rather evenly divided their pacing practices across all but class as a whole both years. The elementary comparison schools were heavily toward subgroups both years. The two middle schools were decidedly different in 1974 and remained so in 1976 with experimental teachers' perceptions highest for student sets his own pace and comparison highest for class as a whole pacing.

With the exception of the comparison high school's move toward more individualization, there were no important changes. The experimental teachers' perceptions did not vary 5% between the 1974 and 1976 administrations of the instrument. Similarly, the comparison elementary and middle school teachers' perceptions did not change appreciably across the two year period. In summary, then, the comparison high school teachers perceived substantial change on teacher role and student pacing practices but all other measures remained essentially the same for all the schools.

Student Perceptions of the Instruction

Student perceptions were measured one time only, spring 1974, toward the end of the fourth year of the five year program in the Edgewood Independent School District. Two separate instruments were used, the My Class Inventory for grades one and three, and the Learning Environment Inventory for grades five, seven-eight combined, nine, and eleven. (4) Both were administered in proportionate samples in the ESP and comparison schools.

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*It should be noted, however, that the degree of change perceived by the comparison high school teachers was not borne out in the Modified Observation Schedule and Record observations nor in the expert teacher observations.

The My Class Inventory contains five factors: satisfaction with the general class climate, friction among the pupils or between the teacher and the pupils, competitiveness among the pupils, difficulty of the learning materials or lessons, and cohesiveness among the class members. The lowest possible score on any factor is 9 and the highest is 27. The factor scores do not combine to a total score.

No statistically significant differences were found between the experimental and comparison first grade classes. (Table 7) Since the author provided no research scores for this instrument, the factor scores were compared visually with those from other administrations of the instrument in Texas. On four of the factors, little numerical difference was found. On the difficulty factor, however, the comparison mean was about 3 points higher than the other Texas mean, and experimental was nearly 4 points higher.

Table 7: Summary Mean Scores and Significant Differences on My Class Inventory Factors, ESP and Comparison: Grade 1

FACTOR	OTHER TEXAS*	ESP $\bar{X}$**	COMP $\bar{X}$**	p
Satisfaction	21.2	22.1	21.8	ns
Friction	17.8	17.3	17.4	ns
Competitiveness	21.6	21.4	21.8	ns
Difficulty	17.5	21.2	20.6	ns
Cohesiveness	23.3	23.4	23.3	ns

*From JONES & CERVANTES (55, p. 12).
**ESP N=186, comparison N=147.

The third grade means approximated those of first grade and again there were no significant differences between experimental and comparison students' perceptions of their classes. (Table 8) Similarly, too, the difficulty factor was the only one on which the Edgewood students differed substantially from the score of other Texas students. Both experimental and comparison were about 3 points higher than that found in other Texas investigations.

Table 8: Summary Mean Scores and Significant Differences on My Class Inventory Factors, ESP and Comparison: Grade 3

FACTOR	OTHER TEXAS*	ESP $\bar{X}$**	COMP $\bar{X}$**	p
Satisfaction	21.6	22.0	21.7	ns
Friction	18.0	17.4	17.4	ns
Competitiveness	21.4	21.8	21.6	ns
Difficulty	17.8	20.9	20.7	ns
Cohesiveness	23.2	23.2	23.3	ns

*From JONES & CERVANTES (55, p. 12).
**ESP N=132, comparison N=133.

The Learning Environment Inventory was administered to the alternate grades above third. The instrument contains 15 separate constructs or factors and as with the My Class Inventory, they do not aggregate to a total score. The 15 include the 5 in the My Class Inventory, plus diversity of materials and methods used in the class, formality of the rules of conduct and studies, speed at which materials are presented, the general environment, the goals of the class, favoritism showed by the teacher to some students, cliqueness among the students, disorganization of presentation of materials, student apathy, and democracy or lack of it in the management of the class. Some, of course, are negative factors or may be perceived as negative.

Only 4 of the 15 factors were significantly different for the experimental and comparison fifth graders: formality, speed, environment, and friction. (Table 9) In the first 3 the comparison group had the more unfavorable of the two; in friction, the experimental group score was less favorable than comparison.

Both ESP and comparison had higher (about 2 points) scores than the norm group on cohesiveness, demonstrating a strong score on this factor. ESP had a lower, favorable, score on formality than comparison; the norm score was one point lower than ESP. Three points separated the norm and ESP group scores on the general environment factor, a difference from comparison was also a plus for that group. Friction was seen as somewhat higher in both Edgewood groups than in the norm students but the difference was not great - less than two points. Favoritism, a negative factor, was seen as more prevalent in both Edgewood groups than in the norm; difficulty was about two points less in Edgewood but all three scores were within the general range expected for this factor.

No clear pattern emerged among the fifth grade differences. Neither the experimental nor the comparison classes were consistently more favorably viewed by the students. Similarly, although some differences appeared between one or the other, or both, of the Edgewood groups when compared to the norms, no clear pattern of differences were shown. In general, the students in both Edgewood samples were within the general range of expected scores for the factor.

Table 9: Summary Mean Scores and Significant Differences on Learning Environment Inventory Factors, ESP and Comparison: Grade 5

FACTOR	NORM $\bar{X}$*	ESP $\bar{X}$**	COMP $\bar{X}$**	p
Cohesiveness	17.68	19.47	20.04	ns
Diversity	20.36	19.37	19.75	ns
Formality	17.67	18.97	19.70	.023
Speed	17.63	17.21	17.97	.017
Environment	16.51	19.53	18.77	.043
Friction	17.16	18.97	18.00	.007
Goals	17.92	18.62	18.78	ns
Favoritism	14.48	17.21	16.44	ns
Cliqueness	18.98	19.02	18.84	ns
Satisfaction	17.96	17.84	17.88	ns
Disorganization	17.55	16.93	16.45	ns
Difficulty	19.56	17.18	17.30	ns
Apathy	16.44	17.13	17.00	ns
Democracy	16.84	17.46	17.73	ns
Competitiveness	16.96	17.85	18.02	ns

*From ANDERSON, GARY J. (4, p. 14).
**ESP N=122, comparison N=169.

The combined grades 7-8 samples were not different on any of the 15 factors when ESP and comparison were studied. (Table 10) Two or more points separated the Edgewood scores from those of the norm group on the following factors: cohesiveness (positive), formality (negative), speed (negative), environment (positive), favoritism (negative), difficulty (positive). No pattern was exhibited in these seventh-eighth grade differences.

Table 10: Summary Mean Scores and Significant Differences on Learning Environment Inventory Factors, ESP and Comparison: Grades 7-8*

FACTOR	NORM $\bar{X}$**	ESP $\bar{X}$***	COMP $\bar{X}$***	p
Cohesiveness	17.68	20.35	19.90	ns
Diversity	20.36	20.16	19.97	ns
Formality	17.67	19.69	19.66	ns
Speed	17.63	16.75	16.80	ns
Environment	16.51	19.81	19.73	ns
Friction	17.16	18.69	18.49	ns
Goals	17.92	19.00	19.13	ns
Favoritism	14.48	15.78	16.44	ns
Cliqueness	18.98	19.16	19.07	ns
Satisfaction	17.96	18.31	17.90	ns
Disorganization	17.55	16.51	16.17	ns
Difficulty	19.56	17.20	17.60	ns
Apathy	16.44	18.31	16.85	ns
Democracy	16.84	17.43	17.77	ns
Competitiveness	16.96	17.67	18.33	ns

*In both middle schools the classes contained both 7th and 8th grade students.

**From ANDERSON, GARY J. (4, p. 14).

***ESP N=103, comparison N=98.

The ninth grade scores were found to be statistically different in only three factors: diversity, favoritism, and disorganization. In all three cases, the comparison group score was more favorable than the experimental. On only one factor was the norm score two points or more higher than both Edgewood groups - difficulty - and the Edgewood scores were more positively directed. In a few cases, the norm was about two points higher than either ESP or comparison but not both.

The greatest number of significant differences between the experimental and comparison groups occurred in eleventh grade - 6. (Table 12) These included, with the group with the more favorable score in parentheses: formality (comparison), speed (comparison), environment (comparison), satisfaction (comparison), difficulty (comparison), and democracy (experimental). Two or more point differentials between the norm and Edgewood groups existed for: cohesiveness (positive), environment (positive), disorganization (positive), and difficulty (positive).

Table 11: Summary Mean Scores and Significant Differences on Learning Environment Inventory Factors, ESP and Comparison: Grade 9

FACTOR	NORM $\bar{X}$*	ESP $\bar{X}$**	COMP $\bar{X}$**	p
Cohesiveness	17.68	19.14	19.93	ns
Diversity	20.36	18.65	19.81	.003
Formality	17.67	19.00	19.45	ns
Speed	17.63	17.37	17.08	ns
Environment	16.51	18.28	19.39	.021
Friction	17.16	17.60	17.78	ns
Goals	17.92	18.81	19.56	ns
Favoritism	14.48	16.60	15.41	.030
Cliqueness	18.98	18.93	18.24	ns
Satisfaction	17.96	17.82	18.17	ns
Disorganization	17.55	16.95	15.71	.015
Difficulty	19.56	16.91	17.32	ns
Apathy	16.44	17.12	15.63	.004
Democracy	16.84	17.52	17.73	ns
Competitiveness	16.96	17.30	17.11	ns

*From ANDERSON, GARY J. (4, p. 14).
**ESP N=96, comparison N=103.

Table 12: Summary Mean Scores and Significant Differences on Learning Environment Inventory Factors, ESP and Comparison: Grade 11

FACTOR	NORM $\bar{X}$*	ESP $\bar{X}$**	COMP $\bar{X}$**	p
Cohesiveness	17.68	19.31	19.00	ns
Diversity	20.36	19.46	19.72	ns
Formality	17.67	19.76	18.50	.001
Speed	17.63	18.39	16.06	.001
Environment	16.51	18.80	19.99	.014
Friction	17.16	17.72	17.96	ns
Goals	17.92	19.34	19.34	ns
Favoritism	14.48	15.45	14.87	ns
Cliqueness	18.98	18.45	19.01	ns
Satisfaction	17.96	17.58	18.57	.015
Disorganization	17.55	15.31	15.67	ns
Difficulty	19.56	17.34	16.06	.001
Apathy	17.12	16.14	15.97	ns
Democracy	17.52	18.24	17.31	.004
Competitiveness	17.30	17.06	16.45	ns

*From ANDERSON, GARY J. (4, p. 14).
**ESP N=111, comparison N=90.

The student perceptions, when viewed over all seven grades tested (six groups representing seven grades), were not clearly different from those of the norm group but they tended to be somewhat more positive. This coincided with the research from other schools in Texas which have likewise shown slightly more positive scores. (55 and a report in preparation on an Elgin, Texas, ESEA program) Even then, however, no one factor appeared distinctly different across all grades.

The experimental and comparison groups were also not different when viewed across the grades. Comparison tended to be somewhat more frequently in the favored position but the pattern was not uniform across factors. No importance could be imputed from the tendency.

Non Classroom Instruction*

During the first two and one-half years of the Edgewood School Plan, the family services component conducted activities that were designed to "interest students in greater participation in school." (d13, d18) Direct involvement of students was expected to have a salutary effect on their attendance and academic performance. Additionally, opportunities for learning a number of skills were provided through the activities of the component.

The major student activities and a summarized statement of the interviewed participants' ratings of these, taken from the Second Interim Report (17), included:

- Student Action Center (Summer Program): Twenty-one students participated in activities on voter education, social action services, consumer advocacy, self awareness, and community surveys.

- Youth Participation Program: Forty students worked and learned in twelve different locations in a part time, paid capacity.

- Health Program: An unknown number of students observed health care services and attended seminars on nutrition. Twelve received on-the-job training. Those who participated in the training phase rated this activity as very useful.

- Drug Abuse Workshop: Five students received some training in drug abuse awareness through several local agencies.

- Drug Education: Two related activities were conducted; the US Office of Education's regional program invited students, parents, teachers, and other community members to a seminar in Bandera, Texas. Later, forty students participated in training on drug awareness put on by the Drug and Alcohol Center, Ft. Sam Houston, San Antonio. These high school students then worked with other students in a "one shot" awareness program. Two presentations of rock opera were given to publicize drug education. The participants and some interviewed non participants rated this activity as very useful and regretted that it was not continued.

- People's Lobby for Equal Education: Parents, students, and staff members attended meetings of this organization and aided in the fund raising to pay the cost of informing the public about the school finance problem.

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*Details for this section were included in a previous publication (17, pp. 16-35) and were therefore not repeated herein.

- Community Survey: Fifteen students were trained in survey techniques and conducted an unpublished study on community attitudes. Participants rated this activity as somewhat useful; non participants rated it as of little use.

- Community Health Practices Study: Seventeen secondary students administered bilingual questionnaires seeking information on home remedies for accidents and illnesses. Questions were also posed on what parents thought their children should learn about health, with the intended purpose of formulating a middle and high school health course. This latter portion was never implemented. The students who conducted the survey rated it as between somewhat and very useful; non participants rated it as of little use.

Generally, the students were positive about the activities in which they participated. Interviewed non participating students generally gave lower ratings but almost never negative. The family services component activities with these students was seen as a positive benefit from the Edgewood School Plan by those who had been incorporated into its program.

Student and parent counseling was provided when desired and especially when a severe absenteeism problem had developed. Assistance to students and families in the form of referrals for help with clothing, food, medical attention, and other services was also tendered.

A direct benefit of truancy reduction had been expected from these projects and some of the students involved were chosen specifically because they were "disaffected" with school. The number of participants, in relation to the total number in the ESP high school, however, was very small. Measurement of absenteeism found a worsened rate in the high school and no change in the middle school, from the previous year, 1973-1974. Attendance was reported by several districts in the county to be decreasing for this same period; two districts noted much higher percentages of absenteeism than Edgewood.

Although the family services component did not continue most of these activities, turning to direct services to the community rather than to or through students, most of the component staff members, students in the program, and some other students and community members saw the work as positive and needed. The only negative results found from the study of these early activities were when a project did not reach its publicized culmination and when some of them were dropped, especially the drug awareness program.

Credit and Degree Training for Adults

The family services component, with assistance at times from personnel in the other components, conducted several kinds of credit and degree training through the years but primarily from late 1974 to the end of the program in 1977. These consisted of sponsoring or facilitating courses, both undergraduate and graduate, taught by the faculties of local colleges and sometimes by Edgewood faculty on temporary appointment; university degree and teacher certification courses for staff; and high school credit courses through the Graduate Equivalency Diploma and subsequently in the alternative high school project.

One of the early problems faced by the experimental schools program in Edgewood was the number of teachers who were not certified or were not certified to teach in the area to which they were assigned. (31) Both the curriculum and the family services have facilitated courses to help the teachers become certified, arranging special cooperative programs with local universities and sponsoring some course work in the Edgewood area. Our Lady of the Lake University, St. Mary's University, Trinity University, the University of Texas in San Antonio, and the Texas branch of Antioch College were those that furnished most of this training. Since the colleges were primarily responsible for enrollments, no count of those Edgewood teachers and other staff members that attended was possible. Nevertheless, the records of the two components, and at certain times those of the staff development component, listed many courses "arranged" for Edgewood. Through this facilitation, and from the efforts of the individuals who sought out the courses they needed independently, the percentage of teachers on an emergency certificate* was sharply reduced through the years - from a reported (31) 42% in 1972-1973 to a low of 8% in 1976-1977 (47). Similarly, the percentage of teachers with masters degress rose from a low of 11% in 1972-1973 to a high of 27% in 1975-1976 (40). While ESP did not claim credit for this latter accomplishment, the number of experimental teachers and staff members that attained masters degrees was known to exceed 28 and many of these either began their work under the sponsorship of the program or were assisted in obtaining admission.

In 1974 the family services designed and implemented a special project called the community interaction program. In cooperation with the administration of Our Lady of the Lake University, appropriate processes for testing community members for admission and granting learning through work experience, facilitating courses taught in the ESP schools in late afternoons and evenings, and general help for anyone to begin a college education were carried out. Although considerable difficulty had to be overcome in the iniation of such a program, nearly 150 persons took courses the first year. (37) The program was given a special name, Edgewood Community College, and although it declined rapidly in number of courses and students, it was termed by the staff as a "project that raised the awareness of the community, letting them know that they could gain admission to college and perform the work satisfactorily." (93, p. 78)

A second effort of the community interaction program was the extension of the district General Equivalency Diploma courses to several sites in the experimental schools area. The district, in conjunction with the Bexar County School Superintendent's Office and the Texas Education Agency Adult and Continuing Education program, had been offering classes designed to teach the skills necessary to pass the state test for a high school equivalency certificate in Kennedy High School for many years. The cooperative effort between ESP and these organizations gave considerable publicity to the opportunitites for such a study and classes were begun in five different schools. The staff was mostly volunteer and many were teachers in the ESP schools. Language, science, social studies, and mathematics were offered through lectures, independent study, and faculty assistance to master the skills.

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*In Texas, teachers may teach three years on an emergency certificate if they meet certain requirements, including holding a bachelors degree.

The state program furnished the materials for the regular program in Kennedy High School and offered them to the ESP sites. Generally, however, the faculty and ESP staff attempted to develop their own materials on models utilized in the general experimental program. (d94)

The spring 1975 classes were studied via the teacher and student reactions to the programs, experimental and comparison. Both students and teachers were enthusiastic about the opportunities offered to obtain the certificate in both programs. No negative reactions were recorded. The services connected with the programs, however, were varied. The ESP teachers reported problems in obtaining the materials when they needed them and noted that there were often insufficient copies for all the students, thus impeding the instruction. (Table 13) The utility of the materials, however, received an average rating of 2.4 on a 3.0 scale. The comparison teachers rated the timeliness and utility of the materials higher than did experimental but they, too, had difficultires with the quantity provided. Both groups of teachers rated the facilitation by the administration as "useful" with comparison slightly higher than experimental. (d26)

Table 13: Teacher Ratings* of Services to the General Equivalency Diploma Program, ESP (N=10) and Comparison (N=10)

SERVICE	ESP Av. Rating	COMPARISON Av. Rating
Timeliness of Materials	2.2	3.0
Utility of Materials	2.4	2.7
Quantity of Materials	1.6	1.8
Facilitation by Administration	2.2	2.5
Overall Rating	2.2	2.5

*Ratings could range from 1.0 to 3.0.

Greater differences occurred in the student ratings. The experimental program students rated timeliness, utility, and quantity of the materials similarly to those ratings by the teachers. (Table 14) They were somewhat more concerned, however, with the scarcity of materials than were teachers and gave that service a slightly lower rating. The comparison students, on the other hand, gave quite high ratings to all three of these service factors. The quality of instruction also differed; the ESP served students rated this a 2.1, helpful, while the comparison students rated instruction at 2.6, more than half way toward very helpful. Only one of the ESP teachers had had training for teaching adults while 7 of the 10 in the comparison program had. This may have accounted for the differences in the quality of instruction ratings. (d26, d94)

Table 14: Student Ratings of General Equivalency Diploma Program Services, ESP (N=84) and Comparison (N=107)

SERVICE	ESP Av. Rating	COMPARISON Av. Rating
Timeliness of Materials	2.2	2.9
Utility of Materials	2.5	2.5
Quantity of Materials	1.0	2.5
Quality of Instruction	2.1	2.6
Overall Rating	2.0	2.6

Teachers and students were asked to list the problems that existed in their teaching/learning situations. Rather sharp differences in their opinions were recorded. The most frequent problem listed by the ESP teachers was attendance; 60% of the problems listed concerned this in some way. (Table 15) ESP students, however, and the comparison teachers and students, mentioned this infrequently. The most important problems listed by students, whether ESP or comparison, in order of frequency, were: time to study, outside obligations, transportation, and fatigue. Time to study was the most frequently mentioned, also, by the comparison teachers.

Table 15: Percentage of General Equivalency Diploma Student Problems Listed by Teachers and Students: ESP and Comparison

STUDENT PROBLEMS	ESP				Comparison			
	Teachers		Students		Teachers		Students	
	N	%	N	%	N	%	N	%
Attendance	18	66	2	4	2	13	2	3
Prior Preparation	1	4	1	2	0	0	1	1
Time to Study	2	7	18	34	10	61	33	45
Fatigue	1	4	10	19	2	13	8	11
Outside Obligations	1	4	14	26	2	13	18	25
Motivation	4	15	0	0	0	0	0	0
Transportation	0	0	8	15	0	0	11	15
Total	27	100	53	100	16	100	73	100

As a generalization, both the ESP and comparison students valued the opportunity to study for the high school certificate and their ratings of the services to facilitate that study were from useful to very useful. Scarcity of study materials was a concern to both groups. The comparison students rated the quality of instruction higher than did the experimental, perhaps a reflection of the low number of ESP teachers with specific training for this type of instruction. Attendance was seen as the major problem in so far as the ESP teachers were concerned. Comparison teachers and students, and ESP students, saw time to study as their perceived major problem. The program was discontinued in the experimental schools during the fourth year of the project.

In early 1975, planning began for a new thrust within the family services component, an alternative high school program. The district offered a special night high school for students who could not attend during the day, the General Equivalency Diploma program, and a special school for pregnant girls. The component proposed to operate a high school based on the Adult Performance Level requirements, a set of basic skills that had to be mastered. Those who mastered the skills received a regular high school diploma rather than an equivalency certificate.

The Edgewood Adult Performance Level Competency Based High School Diploma Program, commonly called the external high school, was initiated in the fall of 1975.* It was designed to serve dropouts and potential dropouts. Edgewood residents who did not complete high school and were 18 years old, or were 17 and had not attended school for one year, could study for a high school diploma under the University of Texas at Austin plan, modified locally, through independent study and teacher assistance.

The program was conducted by the family services component of the Edgewood School Plan, as a part of its redirection of emphasis from students in school to direct benefits to the community. The program was jointly funded by the Edgewood District, the Edgewood School Plan (from its National Institute of Education funding), the Bexar County School Superintendent's office (under Adult Continuing Education funding), the San Antonio office of the Economic Opportunity Development Corporation, and state special education (Plan A) funds. It was first conducted in the facilities of the Iglesia Bautista Alta Vista (Alta Vista Baptist Church) and was later moved to the Burleson Elementary School annex.

The program served 137 individuals during the 1975-1976 school year and graduated 22 of these. Only 23 of those enrolled dropped out of the program and the rest continued their work toward the diploma. During the 1976-1977 year, nearly 230 individuals were enrolled and 25 of these graduated in spring 1977. (d98)

The Edgewood board of education officially continued the program for the 1977-1978 academic year in March 1977. The five professional staff members were to continue to be furnished by the Edgewood district, Bexar County Adult and Continuing Education, and the Economic Opportunity Development Corporation. (d42, e76)

Non Credit Training of Adults

Several components offered specialized training for adults in the community. The early handicapped component gave parent effectiveness training, aimed at making the parents more responsive to their youngsters' needs and to be able to assist them more with their school work. Conversational Spanish, with emphasis on the local variation of the language, was provided three times, once by the cultural advocacy component and twice by staff-development. Home nursing was given by the family services component and was completed by ten local women. Later, the same component offered courses on communications skills, reading Spanish, consumerism, and how to make their participation in the district affairs more effective. Staff development gave seminars on how to be a parent aide and the same component, in conjunction with curriculum development, supplied training on how to write curricular materials.

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*Several other unofficial names have been used for the program: Edgewood High School Diploma Plan, Edgewood Master Academy, and Alternative High School.

While no exact count of participants was maintained for these, primarily because of their short duration, the component reports indicated that a "good proportion of the community was reached." (e26, e41, e44, e61, e68) Several of the community members attended more than one of the training programs and participated in the affairs of the experimental schools program in a number of ways. The contributions of more than forty were recognized at a special awards program in spring 1977 and an article in La ESPeranza, house organ of the program, noted that many had been trained for their work through the efforts of the ESP staff. (e76) One of the intended effects of the training of adults was to help them participate more effectively and more often in the general administrative affairs of the district. Examinations of the attendance records of the board meetings through the five years showed varied numbers of community members present but no pattern of increased attendance prevailed. No other measure of the effectiveness of this type of training was attempted by either the internal or external evaluation units.

The Processes of Implementation

The vast quantities of materials produced by the components in the implementation of the experimental schools program, the multifaceted instructional approaches, and the voluminous data, furnished by the project itself, the external evaluation team, and outside studies, as evidenced by the sixteen pages of documentation and bibliography, somewhat obscure the trends within the five years. The processes, then, are worthy of inclusion as findings.

The initiation stage, 1972 through early 1974, saw an almost slavish effort to implement, both in materials and instruction, the guidelines established in the Final Plan, with the exception of internal evaluation which was not operable until the latter part of the period. The experimental schools document had spelled out exactly what was to be done first - social studies - and what was to follow - language instruction. Materials for these were produced immediately and implemented, at least to some degree, as quickly as could be managed. Difficulties in obtaining approval of the plans of some of the components occurred, slowing down the process, but the thrust was implementation of the basic document guidelines.

Redefinition occupied a period from middle 1974 through much of 1975. Essentially, the production and some of the programs begun during the initiation stage were seen as "not meeting the needs of the students and the community" and a great deal of effort went into planning what should be done next. Some production of materials was accomplished but implementation of much of it into grades K-12 was scarce and short lived. The family services component embarked on a new program also, emphasizing the acquisition of the high school equivalency certificate and courses for university credit.

A third period then began, reformulation, in which concentrated efforts were made to produce vast quantities of materials, provide a great deal of staff development, and implement as much of the program as could be developed. Many ESP staff members, principals, and teachers saw this period as a "return to the basics of reading, writing, and arithmetic" and a substantial quantity of curricular materials were designed and printed. The family services component moved to a new program, an alternative high school, to help provide the greatest possible amount of learning possible for community members not being served otherwise. "The program is about to close; we must leave something behind" was paraphrased in several ways in the final interviews with the staff.

Interface, or interphase as it was sometimes termed, occupied the last few months of the program's fifth and final year, although some evidence of this movement began some months earlier. The alternative high school and its staff were officially "adopted" by the board. Three ESP staff members were named to supervisory positions within the district. One other went to the district testing office. Two assumed general administrative duties. Others transferred to other districts or began graduate studies at several universities. The curricular materials were being distributed to the several offices and schools in the district. The furniture and equipment was allotted to the several other programs in the district according to the district and government agreements. The crucial period of carry over to the Edgewood Independent School District from the experimental schools program had begun.

CHAPTER IV: FIVE YEARS IN PERSPECTIVE

The Edgewood Independent School District, under the US Office of Education and later the National Institute of Education, designed and carried out a five year plan intended to modify its programs in ways that would enable the students and the community to profit more from the education offered. Specifically, the experimental schools program under study set out to make the curricula more relevant to the individual needs of the students and to reflect their experiences as Mexican Americans. The plan further proposed to train the teachers to properly implement the new curricula and to make them more responsive to the needs of the pupils. The entire community was defined as the "student body" of the district and special programs to help the residents achieve a better quality of life were to be instituted.

An external evaluation of those efforts was included in the overall experimental schools design. The present study, a part of that evaluation, was to examine the materials and processes of the implementation effort of the Edgewood Experimental Schools Project, later renamed the Edgewood School Plan. The research was mainly process oriented, describing the district's modification efforts and evaluating them, when possible, through expert analysis, teacher and participant perceptions, and relating these efforts to the changes in the affective and cognitive domains where applicable. Comparison groups were used to assess changes in relation to those achieved in other parts of the district.

The Curricular Materials

The funding document, Final Plan: Experimental Schools Project, dated May 1972 (31), outlined the goals of the project and the directions it was to take but did not provide a curriculum. Later documents (e13, e17) partially outlined the scope and sequence of the materials to be produced and implemented. During the fifth and final year, the scope and sequence for separate subjects for most grades were prepared and published in teacher guides. (c62 through c82)

A curriculum development component in the Edgewood School Plan was principally responsible for the production of the materials. A vast quantity was produced and most of it was implemented at least partially somewhere within the experimental schools program. (See the c section of the Documentation and Bibliography portion of this report.) Many of these materials, however, were discrete units; few were revised after initial implementation and/or incorporated into later editions. Two important exceptions to this isolated unit process were found: the mathematics program was almost continuously revised and expanded through the life of the program and the teacher guides produced the last year contained materials from previous production or revisions thereof.

The review of the curricular materials by experts in the field found more than half the 62 sets examined seriously deficient or needing considerable improvement in physical presentation. The most serious problems noted were the scarcity of illustrations and print too small for primary children's use. Some excellent examples of physical presentation were found among the many materials.

The instructional objectives were generally present and often were stated in measurable terms; this was particularly true for the last two years' materials. Some sets, however, contained objectives that were difficult to measure and in some cases, general but not specific objectives were provided. The experts called attention to the excellence of the objectives in the mathematics materials. Pre tests were frequently provided; post tests less often. Most of the tests examined were adequate or better in speaking to the information to be taught.

A high proportion of the materials was judged applicable to the intended grades and subject matter. A few important discrepancies were found, usually related to material too difficult for the students' level. In general, the specialists lauded the materials as individual units or sets of units but were concerned that they had not been subject to revision after implementation and incorporated, when applicable, into the later efforts of the program. Again, they highlighted the excellence of the process undergone in mathematics.

The readability levels of the materials in English were generally appropriate for the intended grades. They were also lower, a favorable quality, than the materials used in the comparison schools. A few units were at unusually difficult levels. The Spanish materials varied a great deal in this regard; a few were at the appropriate level but most were substantially higher than expected and would pose serious problems for the students.

The determinations of cultural relevancy found substantial amounts of San Antonio and Texas content but very little on Mexican Americans, Mexicans, or other Latin American peoples. A few notable exceptions were found, especially in the middle school social studies and humanities materials and in those for the arts and humanities in the early high school materials.

Teacher perceptions regarding the curricular materials were "enthusiastic" the first two years, skeptical the third year when the communications skills materials were produced, and then returned to a more positive opinion during the last two years. Their concerns closely paralleled those of the expert reviewers: separate units rather than a scope and sequence curriculum, quality was seen as low in some cases, and often there was insufficient material for student use. Again, like the specialists, the middle and high school teachers pointed to the high quality of the mathematics materials; elementary teachers were less enthusiastic about these.

Special studies on the curricular materials, both by the external evaluation team and by graduate students in local universities, generally confirmed the findings by the expert reviewers and the perceptions of the teachers. They usually found the materials satisfactory as units but lacking coherence as a curriculum. An additional dimension, student interviews, usually confirmed the previous findings on the relatively high interest level and acceptance of the social studies, mathematics, science, and humanities units; a large majority of the students, however, did not "like" the language arts sets.

Conclusions about the curricular materials were difficult to draw because of the great variability of the production and the sporadic implementation of most of them. Generally, the researchers concluded that:

- A detailed scope and sequence curriculum, developed early in the project and revised as necessary, would have given direction to the production of materials, probably resulting in higher quality and greater applicability.
- A process for reviewing the materials after implementation, including student and teacher opinions, then revising them for later implementation, should have added substantially to the total development.
- A study of the affective and cognitive results of the materials would have given important clues to the content and quality, to those that did or did not produce the desired changes, and to directions for the entire production effort.

No important differences in attitudes, self concept, or motivation were found between those students utilizing the experimental materials and those using the more traditional adopted texts. Few differences were found in academic achievement; early efforts in an integrated kindergarten program in one school, English in the high school - some differences in mathematics in the second, third, and fourth years - several nonpatterned differences in some high school subjects the fourth year. The longitudinal study of both the affective and cognitive domains found no important differences between the experimental and comparison groups' scores when viewed over the four year period studied. (14, 15, 17, 19, 54, 86, 107) Since mathematics was the only area with fairly consistent improvement in achievement, the general conclusion was that the production of high quality materials, subjected to frequent revision, and implemented over a substantial amount of time, apparently offers a greater expectation of cognitive improvement than any quantity of separate, unmodified units, even if the quality of these is high.

Staff Development

The staff development component faced a difficult task since the teacher turnover rate was very high every year. Thus, sequencing the training from introduction to highly complex implementation strategies was hampered. The variability of the curricular materials, and the changes in their approaches and uses, likewise caused substantial changes to be needed in the training program.

Nevertheless, a substantial amount of training was offered, from short duration or subject sessions of a few hours to extended and indepth courses. More than 3400 teachers, principals, aides, parents, and other community members were reported to have attended some portion of the training. These participants generally rated the training as "useful," between the scale points of "undecided" and "very useful."

Staff development, then, was nearly continuous during the five year period despite some difficulties encountered in obtaining approval of the training plans and subsequently in funding. The quantity of training content was varied and always related to the project's plans for curriculum and instruction or to the community education programs. Sequencing was evident in Spanish, drug education, and in general instructional methodologies when taken as a whole.

As with the curricular materials, conclusions were difficult. Since no affective differences were found in the students and few cognitive differences occurred, it would have to be said that the part staff development was to play in this total process, along with the other components involved, provided little evidence of success. This must be tempered by the realization, however, that the changes instituted in the implementation during the years, plus the funding difficulties, made it unlikely that great measurable results could have been obtained. Similarly, it should be pointed out that one set of training sequences, that related to individual instruction, although it changed classroom practices little when carried out by itself, appeared to have an effect when the individualized materials for the implementation were provided - increases in individualization practices were found in several grades studied. (80) The project's internal evaluation team also found increases in 1976-1977 but ascribed these to "other than ESP phenomena." (e78)

Instruction

The implementation of the program was as varied as the curricular materials and the staff development, encompassing classroom K-12 grades, out of school instruction for students in grades 7-12, credit and degree training of adults, and non credit adult training. Assessment of these activities was as difficult as with the curricular materials and the staff development, not only because of the rapid changes but also because much of the implementation was of short duration, frequently less than half a year, and because the degree of implementation varied from nearly none to nearly total incorporation.

An important aspect of the experimental program was the improved relationships between the teachers and the students. Measurement over the first four years showed no appreciable differences in emotional climate and teacher interpersonal styles between the experimental and comparison classrooms. Similarly, the proposed emphasis on the verbal portions of language arts instruction toward a balanced program of listening, reading, speaking, and writing skills did not result in experimental and comparison group differences. Increases in the use of Spanish in instruction and classroom management, also expected, were not evidenced; during the fourth year the comparison students spoke more Spanish at the high school and no differences were found elsewhere.

The elementary classroom practices varied little between experimental and comparison - both primarily utilized subgroups as the focus of most attention. Some small increases toward individualization were discovered in some measures on the experimental classes. The practices in the middle schools were primarily "class as a whole" oriented but the experimental school was significantly more toward open education on the selection of materials for student use. In 1976, the only year in which significant differences occurred at the high school, the experimental classes were more open than the comparison on attention to individuals and teacher as a resource person rather than a presenter of planned lessons. As a whole, then, experimental and comparison were alike during the third program year but in the fourth year some increases in the open education measures were registered for the experimental group, chiefly in the high school.

Expert teacher observations of the implementation conducted in 1975 and 1976 generally confirmed the previously described results. In addition, they pointed out some rather serious problems in language arts instruction, especially in the teaching of Spanish. The observations found excellent implementation in middle and high school mathematics, and in middle school social studies. The experts noted a great deal of variation in the quality of the instruction but judged it, overall, as satisfactory or better.

Student perceptions of the learning environment were measured only in the fourth year. Few differences were found between the experimental and comparison groups and these were not consistently in favor of one group or the other. Some differences were found when the Edgewood students' perceptions were compared with those from other Texas groups or with the norms for the instrument but these were also not of uniform pattern. The students were described as perceiving their classes about alike other groups measured with the same inventories.

Non classroom instruction for students in the experimental schools had embraced many activities during the first two and one-half years but were sharply curtailed thereafter. Those that were conducted were judged mostly positively by the participants. Interviewed non participants rated them somewhat lower but still positive. While few other measurable results could be obtained, they appeared to have functioned well.

The credit and degree training for adults included college credit and degree courses, high school equivalency certificate training, and an alternative high school program. An increase in the proportion of certified teachers and teachers with the masters degree may have been partly a result of the implementation of the general thrust of teacher preparation. A type of community college program was developed in cooperation with a local institution of higher learning and many students took beginning courses in the experimental program. Some received credit for prior learning through work experiences. While this program was greatly reduced in emphasis the last year, some community members profitted from the experience. Some probably started college when they would not except for this program.

A training program to prepare students to take the Graduate Equivalency Diploma examinations was conducted one year. Studies of the perceptions of those in the experimental and comparison programs showed few important differences between them except for a somewhat higher rating on the quality of instruction in the comparison program, one that had been in existence for many years.

The alternative high school, open only to Edgewood dropouts or residents who had not completed high school, graduated 47 students the first two years and 200 others were enrolled at the close of the investigation. The program was officially adopted by the Edgewood board of education and was to be continued the year after the experimental program closed.

Non credit training for adults occurred at intervals through the five years and included mostly short term classes or seminars. Few measures of results were attempted but the subjects appeared relevant to the ESP programs and some individuals were later incorporated in to several activities of the experimental project.

Conclusions about the implementation of the program closely paralleled those of the curricular materials:

- Frequent changes in the approaches, methods, and techniques appeared to have weakened the possibility of measurable impact on student affective or cognitive scores.
- Changes in implementation appeared difficult to achieve through training alone but seemed viable when training and materials were provided together.
- Few differences were found in implementation strategies or in the quality of instruction when the experimental and comparison groups were viewed across the four year period.
- Although somewhat speculative since they did not persist very long, it appeared that making training available to adults in more accessible sites increased the participation of adults in these.
- Although there were several avenues available for community members to obtain a high school diploma or equivalency certificate, the alternative high school program appeared to have filled a need and was utilized by the community in rather sizeable numbers.

The overall conclusion was that the implementation of the program produced some measurable benefits to the youth and adults in the Edgewood community. It failed to produce results in some critical areas, especially in the affective and cognitive areas, when measured against comparison groups. And corollary to these, it appeared reasonable to conclude that the frequent changes in implementation may have diminished the opportunities for even more substantial results.

Recommendations to Practitioners

The conclusions lead logically to several obvious recommendations. One of the most important of these is that even though a preliminary guide or curriculum may have to be seen as very tentative, subsequent changes in such a guide are more likely to be directed toward improvement than when such a document does not exist. Thus, as ideas for enhancement of the results occur, they can be judged directly in the light of what was expected and should generally move toward a more coherent and successful program.

Measurement of the results of programs and their accompanying materials is not a luxury; they are imperative if important changes are to be obtained. Off hand opinions and general impressions are useful but they sometimes lead to a dispersion of the effort through well intentioned changes but ones that may not bring about any more success than those existing. Further, measurement can point to areas that need improvement in the implementation, and the directed revisions, then, would appear to have a greater probability of effecting improvement.

Few projects can register much success in a few weeks, a semester, or even a year. Project staff members, teachers, and pupils often experience an adjustment period in which a readiness to achieve is developed. Even small gains may be important during this time. The use of specialists to assist during this adjustment and to make some considered judgments about the probable success or lack of it should be included in the implementation design.

Recommendations to Researchers

The implementation of a long term program with large numbers of participants offers unusual opportunities for the research community to gain new and/or additional knowledge about curriculum and instruction from the longitudinal standpoint. It also poses many severe problems for the research design. Development Associates mounted a team effort through its investigators in San Antonio, a continuously serving technical panel of experts in the indicated fields, and additional advice from specialists in its Washington, DC, office, universities, and other institutions across the country, and the National Institute of Education. All of these contributed valuable assistance to the instrumentation and analyses of the data.

Nevertheless, the external evaluation team experienced a great deal of difficulty in carrying out the research. The physical and regulatory separation of the experimental project from the external evaluation increased the difficulty by putting a premium on communicating the small pieces of information which were, at times, crucial to the design and to the expenditure of resources. It is the considered opinion of the team that an on site researcher in each of the schools, even though apparently expensive, would have paid large dividends in the utilization of other resources. And more importantly, it would have allowed a much sharper specification of some of the data collection.

Simplistic designs, either tied too closely to test scores or too loosely to process, can result in partially understood changes in either. The Development Associates studies of the affective and cognitive domains, although massive in their costs, captured that information well. Additional information on where treatments were actually being implemented, rather than the generalities included in the project documents, could have reduced these costs. Similarly, the process data collected were even more massive but they furnished valuable insights into implementation that was not contemplated or which varied in degree or intent.

Finally, although sometimes prohibited from collecting certain data because of negotiated budget restraints, and sometimes because of inclusions of data to be collected that did not produce much of value, certain aspects of the process were made more cumbersome or led to gaps in the necessary knowledge. Some experiences of the study team relating to these two problems, as examples for consideration, were:

- Minutes of the board meetings would have been as useful as attendance at these meetings.
- Minutes of the experimental schools project staff meetings were inadequate for assessing process; the elimination of this data collection during the last two years was in error.
- When teachers and whole schools have the option to implement treatments or not, documents of intention are of little value and may cause contamination of the data unless great caution is observed.
- When variations are allowed, the degree of implementation is crucial to assessing the worth of materials or the instructional process; adequate plans for capturing such an eventuality should be included in the design.
- The results of implementation are usually cumulative, thus the measurement of the first four years of a five year project leaves an undesirable gap in the needed information.

Fortunately, some flexibility in the staffing and research design was allowed the external evalution team effort. This is imperative. Because of this flexibility, some important data on where treatments were implemented or not, where crucial changes were occurring, and some results of the treatments were collected and proved invaluable in describing both the specific and general results.

Summary Statement

The experimental schools program conducted in the Edgewood Independent School District in San Antonio, Texas, implemented a wide array of treatments directed toward improving the affective characteristics and academic knowledge of the students and some sectors of the community. These treatments differed considerably in content, approach, and degree of implementation across the years. While nearly no changes were found in the affective domain and few in the academic achievement, some of the programs produced results that may have residual effects in the district. The training and experience of those staff members retained in responsible positions, increased capability of the instructional staff in teaching and classroom management, and those curricular materials that appear to enjoy future implementation are among these. Similarly, if the publications emanating from the research efforts are studied carefully, they should provide important guidelines to the management of future change programs. Additionally, the successes and difficulties described in those research documents should substantially aid evaluators in similar projects in other sites.

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NOTE: Only those curricular materials, student and teacher, known to have been developed by the program or to have been used in the experimental schools (other than regular texts) are included. Entries are approximately chronological in order of preparation or observed use in the classrooms. Authors are shown in parentheses at the end of the citation if they were indicated on the materials themselves. Authors of private publications are shown in usual format.

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c41. Scope and sequence for science, grades 7 and 8. n.d. [1974] (Diana Cantu, Enrique Herrera, T. J. Cleaver)

c42. Concepto individual, unit I-A-I, explanation (introduction to the unit). n.d. [1974]

c43. Destrezas interdisciplinarias de comunicación, unidad - la familia y el hogar (I): primer año. 1974.

c44. Destrezas interdisciplinarias de comunicación, unidad - la familia y el hogar (II), primer año. 1974.

c45. Memorial High School fine arts program. 1974.

c46. Humanities. Middle School. 1974.

c47. Social studies. Middle school. 1974.

c48. Second grade communication skills program. n.d. [1974]

c49. Social studies, units of study, upper elementary - middle school. n.d. [1974]

c50. Lecciones modelo: destrezas comunicativas, primer año. 1974. (Lina C. Flores)

c51. GONZALEZ, JOSUE M. (ed.) Reviewing instructional materials for cultural relevancy: a handbook. San Antonio, Texas, Curriculum Network for Bilingual/Bicultural Education, n.d. [1974]

c52. Programa de destrezas de comunicación en español: kindergarten. 1974. (supplement to the Southwest Educational Development Laboratory materials) (Rosa Guerra, Victoria Vara, Luis Perez, Juan Martinez, Maria Zambrano, Dolores Romo, Tom Hill, Zoe Klimer, Aurora Hernandez, Miguel Ontiveros)

c53. ZWEIG, RICHARD L. ASSOCIATES. Fountain Valley teacher support system in reading. Elementary. Fountain Valley, California, 1971. (revised 1974)

c54. COOPER, WALTER. A study of a curriculum project, best paced mathematics for distributive education: Edgewood School Plan. Austin, Texas, Antioch Juarez Lincoln, 1975.

c55. Communication arts. 1975.

c56. Each person is an individual: Gus Garcia Middle High social studies. 1975.

c57. Guides for contracted individualized instruction. 1975. (revised 1976)

c58. Gus Garcia Middle School fine arts program. 1975.

c59. Science in communications skills program: Gus Garcia Middle School. 1975.

c60. PEREZ DIAZ, ROBERTO. Evaluation of the Edgewood High School Diploma Plan: problems of control group comparisons. Austin, Texas, Antioch Juarez Lincoln, 1976.

c61. __________. Performance criteria curricula for adults: mathematics in the Edgewood High School Diploma Plan. Austin, Texas, Antioch Juarez Lincoln, 1976.

c62. Communications skills guidelines, book 1. n.d. [1976] (Lorraine Pierce et al)

c63. Communication skills guidelines, book 2. n.d. [1976] (Lorraine Pierce et al)

c64. Guía para destrezas de comunicación, libro 1. n.d. [1976] (Lorraine Pierce et al)

c65. Guía para destrezas de comunicación, libro 2. n.d. [1976] (Lorraine Pierce et al)

c66. Elementary school science: course outlines, a working paper. Levels one to six. 1976. (Mary Ellen Quinn)

c67. Oral language guidelines for elementary school teachers. n.d. [1976] (Mary Ellen Quinn, Carolyn Kessler)

c68. Biology: course outline. 1976. (Mary Ellen Quinn, Patricia Bullion, Bobbie Luckey, Elizabeth Mattingly)

c69. Physical science: course outline. 1976. (Mary Ellen Quinn, Patricia Bullion, Gus Kercheville, Bobbie Luckey. B. S. Thagarajan)

c70. Social studies: elementary school course outline. 1976. (Ann Thompson, Mary Ellen Quinn, Marjorie Smeltzer, Jay Airheart, Rosario Herrera, A. L. Chestnut, Elia Tamez)

c71. Mathematics: scope and sequence, levels 1-30. (revised) 1976. (Vernel Wood et al)

c72. Mathematics: secondary course outlines. 1976. (Vernel Wood, Mary Ellen Quinn, W. H. White, Jesse Van Ness, Raymundo Cruz, Robert Ducharme)

c73. Science: advanced biology course outline. 1977. (Elizabeth Mattingly, Mary Ellen Quinn)

c74. Science: middle school course outline. 1977. (Mary Ellen Quinn, Ike Husband, Enrique Herrera)

c75. Ciencia elemental: guía de materiales, para anotaciones. (niveles uno al seis). 1977. (Mary Ellen Quinn, Irma Teniente, Gweneth Grout) c76. Biología: guía de materia. 1977. (Mary Ellen Quinn, Patricia Bullion, Bobbie Luckey, Elizabeth Mattingly, Paul Rodriguez)

c77. Ciencia física: bosquejo de estudio. 1977. (Mary Ellen Quinn, Patricia Bullion, Gus Kercheville, Bobbie Luckey, Larry O'Neill, B. S. Thagarajan, Paul H. Rodriguez, Irma Teniente, Gweneth Grout)

c78. Ciencia: guía de estudio para escuela intermedia. 1977. (Mary Ellen Quinn, Ike Husband, Enrique Herrera, Paul Rodriguez)

c79. Estudios sociales: bosquejo para escuela elemental. 1977. (Ann Thompson, Mary Ellen Quinn, Marjorie Smeltzer, Jay Airheart, Rosario Herrera, A. L. Chestnut, Elia Tamez, Gweneth Grout)

c80. Estudios sociales: guía para escuela intermedia. 1977. (Ann Thompson, Mary Ann Canamar, Mary Kness, George Colon, Grace Rosales, Robert Salinas, Linda Jimenez, Gweneth Grout, Mary Ellen Quinn)

c81. Social studies: middle school course outline. 1977. (Ann Thompson, Mary Ann Canamar, Mary Kness, George Colon, Grace Rosales, Robert Salinas, Linda Jimenez, Gweneth Grout, Mary Ellen Quinn)

c82. Matemática: alcance y secuencia, niveles 1-30. (revisado) 1977. (Vernel Wood et al)

c83. Reading contracting and skill boxes. English begun 1973-1974, Spanish April 1974; both partially revised in 1977.

Development Associates and Related Documentation
(symbol: d)

NOTE: Documentation related to general process and that containing specific investigations are listed separately. Each set is arranged approximately in chronological order, regardless of the author. Documentation with no author shown was completed by the Development Associates team.

Process Documentation

d1. Memorandum on interviews with curriculum component personnel. 1972.
d2. Memorandum on interview with the Experimental Schools Project director. 1972.
d3. Memorandum on interview with the director of the cultural advocacy component. 1972.
d4. Notes on interview with the director of the handicapped component. 1972.
d5. Summary memoranda on interviews with the Experimental Schools Project principals. September 11, 1972. [6]
d6. Memorandum on interview with the district superintendent. September 18, 1972.
d7. Summary of interviews with three board members. October 8, 1972.
d8. Memorandum on interview with the director of the staff development component. November 23, 1972.
d9. Notes on interview with the director of the handicapped component. January 14, 1973.
d10. Memorandum on interview with director of the staff development component. March 8, 1973.
d11. Memorandum on interview with the director and one staff member of the family services component. March 20, 1973.
d12. Memorandum on interview with the curriculum component director. April 12, 1973.
d13. Memorandum on interview with the director of the family services component. June 4, 1973.
d14. Summary report on interviews with ESP staff members. October 23, 1973.
d15. Summary report on interviews with the ESP and comparison principals. October 28, 1973.
d16. Notes on the interview with the district superintendent. November 5, 1973.
d17. Interview notes on interviews with four district board members. November 18, 1973.
d18. Summary report on interviews with ESP staff members. April 5, 1974.
d19. Memorandum on budgeting interviews. May 8, 1974.
d20. Summary of interviews with the ESP principals. June 6, 1974.
d21. Notes on interview with the district superintendent. October 3, 1974.
d22. Notes on interviews with four board members. October 11, 1974.
d23. Notes on interviews with the ESP and comparison principals. December 2, 1974.
d24. Summary report on interviews with ESP staff members. May 3, 1975.
d25. Memorandum on interview with the director of the cultural advocacy component. May 11, 1975.

d26. TAYLOR, DOUGLAS L. Report on the interview study of GED students in the ESP and non-ESP classes. July 6, 1975.

d27. Memorandum on interview with the staff members of the family services component. October 10, 1975.

d28. Summary report on interviews with the ESP and comparison principals. December 2, 1975.

d29. Summary of interviews with the elementary teachers and aides on language dominance assessment and placement into curriculum modules. December 10, 1975. [24]*

d30. Summary of interviews with the middle school teachers on the curricula and their implementation. December 14, 1975. [8]

d31. Summary of interviews with the secondary teachers in the ESP and comparison schools. December 22, 1975. [8]

d32. Notes on interviews with teachers and aides on adjusting for language assessment displacement. December 23, 1975. [31]

d33. Summary of interviews with three district board members. December 23, 1975.

d34. Summary of interview with the director of ESP. January 11, 1976.

d35. Memorandum on interviews with curriculum component staff members. May 18, 1976.

d36. Memorandum on interview with the director and two staff members of the family services component. June 5, 1976.

d37. Memorandum on interviews with staff members of the staff development component. June 10, 1976.

d38. Memorandum on interview with the ESP director. August 2, 1976.

d39. Summary of interviews with the ESP and comparison principals. October 3, 1976.

d40. Summary of interviews with four district board members. October 22, 1976.

d41. Summary of interviews with the ESP and comparison principals. February 10, 1977.

d42. Notes on interview with the director of the family services personnel. June 10, 1977.

d43. Memorandum on interview with the mathematics supervisor for the district. June 13, 1977.

d44. Memorandum on interviews with the director of the competency based high school diploma program.

d45. Interview with the director of the curriculum component. June 14, 1977.

d46. Memorandum on interview with the director of the curriculum component. June 15, 1977.

d47. Memorandum on interview with associate superintendent for the Edgewood School Plan. June 24, 1977.

d48. Memorandum on interview with director of the staff development component. June 24, 1977.

Documentation of Investigations*

d49. Memoranda on monitored training sessions in 1972. [7]

d50. Memoranda on monitored training sessions in 1973. [8]

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*Numbers in brackets indicate number of sessions or observations except when n.d. is followed by a supplied year.

d51. Memoranda on monitored staff meetings of the Experimental Schools Project. October 1972 - July 1973. [8]

d52. Memorandum on conduct of Edgewood School Plan retreat activities. November 19, 1973.

d53. HONDA, IRMA. The ESP planning case study. (an independent report submitted to Development Associates, n.d.) [1974]

d54. Memorandum on best-paced math program. June 15, 1974.

d55. CERVANTES, ROBERT A. Treatment observations: reading in the experimental and comparison elementary schools. 1974. [8]

d56. JONES, EARL. A study of the implementation of bilingual (English/Spanish) instructional materials in the experimental and comparison elementary schools. 1974.

d57. Memoranda on monitored training sessions: January - June 1974. [11]

d58. DICKS, HORACE L. Identifying the relationship among the "majority-minority" in the Edgewood high schools. MEd research paper. Austin, Texas, Antioch Juarez Lincoln, 1974.

d59. YBANEZ, JOHN. Treatment observations: middle and secondary social studies. 1974. [9]

d60. Memoranda on monitored training sessions: July - December 1974. [6]

d61. THOMPSON, BARRY B. Critique of the mathematics and physical science materials. Edinburg, Texas, Pan American University, April 1975.

d62. TOSCANO, HERCILIA X. Critique of the monolingual and bilingual curricular materials of the Edgewood School Plan. Austin, Texas, Southwest Educational Development Laboratory, 1975.

d63. SALINAS, ROBERT. Student perceptions of a pilot modular scheduling project. Austin, Texas, Antioch Juarez Lincoln, 1975.

d64. __________. Study of a pilot social studies curriculum. Austin, Texas, Antioch Juarez Lincoln, 1975.

d65. SAENZ, RUBEN. Community education in an experimental schools program. Austin, Texas, Antioch Juarez Lincoln, 1975.

d66. CARRILLO, ALICE. A study of bilingual education in the ESP and comparison schools. 1975.

d67. __________. Treatment observations: elementary education. 1975 [26]

d68. COOPER, WALTER W. A study of a curriculum project: best paced mathematics for distributive education. Austin, Texas, Antioch Juarez Lincoln, 1975.

d69. CORTINAS, ROSE MARY. A study of the special Graduate Equivalency Diploma programs in the Edgewood School Plan. 1975.

d70. JONES, EARL. A study of the implementation and assessment of bilingual instruction in the experimental and comparison classrooms. 1975.

d71. __________. The teaching of reading in Spanish in the treatment and comparison bilingual programs. 1975. (with audio-video taped samples of instruction)

d72. RODRIGUEZ, MARIETTA. Treatment observations: best paced mathematics. 1975. [14]

d73. __________. Treatment observations: secondary subjects. 1975. [9]

d74. PARKER, MANETTE. Treatment observations: elementary education in the comparison and treatment schools of Edgewood. 1975. [21]

d75. LUEBBERT, GAYLE. The evening division classes in the Edgewood Independent School District: memorandum of observations. 1975. [11]

d76. RODRIGUEZ, MARIETTA. Treatment observations: middle school fine arts, communications skills, science, and social studies. 1975. [14]

d77. GARCIA, ANTONIO E. Curriculum study report on the middle and high school bilingual and bicultural materials. Rio Grande City, Texas, Rio Grande City Consolidated Independent School District. September 1975.

d78. Memorandum on family services component plans for 1974-1975. November 10, 1975.

d79. SALINAS, ROBERT. The social studies in an interdisciplinary team teaching approach to instruction. MEd research paper. Austin, Texas, Antioch Juarez Lincoln, 1975.

d80. __________. Team teaching in the Gus Garcia Middle School - an instructional approach. Austin, Texas, Antioch Juarez Lincoln, 1975.

d81. Memoranda on monitored training sessions: 1975. [11]

d82. KNAPP, MARGARET O. Critical review of the Edgewood School Plan elementary communications skills program. University of Texas at San Antonio, March 22, 1976.

d83. CARRILLO, ALICE. Treatment observations: elementary education. 1976. [20]

d84. JONES, EARL. Treatment observations: bilingual instruction in the ESP and comparison classes. 1976. [18]

d85. COLON, GEORGE. The humanities in an interdisciplinary program for the middle school. MEd research paper. Austin, Texas, Antioch Juarez Lincoln, 1976.

d86. PARKER, MANETTE. Treatment observations: elementary education in the comparison and treatment schools. 1976. [16]

d87. RAMIREZ, JULIAN. The spiral approach to the best paced mathematics program. Austin, Texas, Antioch Juarez Lincoln, 1976.

d88. Memoranda on monitored training sessions: January - June 1976. [9]

d89. RODRIGUEZ, MARIETTA. Study of the team teaching approach in Gus Garcia Middle School. 1976.

d90. __________. Treatment observations: middle school interdisciplinary studies. 1976. [8]

d91. __________. Treatment observations: secondary subjects. 1976. [18]

d92. __________. Treatment observations: best paced mathematics. 1976. [11]

d93. SAENZ, RUBEN. The community college program in the Edgewood schools. MEd research paper. Austin, Texas, Antioch Juarez Lincoln, 1976.

d94. SALINAS, ROBERT. Teaching the social studies in the Edgewood GED program. MEd research paper. Austin, Texas, Antioch Juarez Lincoln, 1976.

d95. THOMPSON, BARRY B. Critique of curriculum and instruction in the Edgewood School Plan. Commerce, East Texas State University, 1976.

d96. Memoranda on monitored staff meetings of the Edgewood School Plan: August 1973 - June 1976. [32]

d97. Notes on meeting of teachers on curriculum modules for K, 1, and 2 grades in the ESP elementary schools. October 18, 1976.

d98. PEREZ DIAZ, ROBERTO. Validation of the Edgewood Competency Based High School Diploma Program results through comparison sample analyses. MEd research paper. Antioch Juarez Lincoln, 1977.

d99. TOSCANO, HERCILIA X. Critique of the new and modified curricular materials of the Edgewood School Plan. Austin, Texas, Southwest Educational Development Laboratory, 1977.

Experimental Schools Project, Edgewood School Plan, and Related Documents
(symbol: e)

NOTE: Only those documents pertaining directly to the topics of this report are included; documents with generalized discussions and no immediate decisions indicated are excluded. Entries are chronological by component.

Cultural Advocacy

e1. Annual report. October 1973.
e2. Quarterly report. June 1974.
e3. Cultural advocacy committee report. 1975.

Curriculum Development

e4. Quarterly report of the curriculum component. November 1972.
e5. Curriculum development quarterly report. March 8, 1973.
e6. Progress report and abstract of activities: September 1972 - May 1973.
e7. Curriculum development component quarterly report. June 11, 1973.
e8. Curriculum component administrative policies and procedures. 1973.
e9. Curriculum component: accomplishments during the first school year. 1973.
e10. Curriculum component up-date. July 1973.
e11. Summary of activities: July - December 1973. January 5, 1974.
e12. ESP/reading committee interim report: research existing programs data. February 1, 1974.
e13. Philosophy of communications skills. March 1, 1974.
e14. Maintenance committee report. March 2, 1974.
e15. Memorandum on the maintenance and development of curriculum. 1974.
e16. Curriculum component six months report. January 1975.
e17. Personalizing instruction models and program emphasis. Spring 1975.
e18. Methodology committee report: scope of methodology. April 21, 1975.
e19. Role of parental involvement in communications skills program. May 16, 1975.
e20. Quarterly report of curriculum component. January 26, 1976.
e21. Summary of activities of the curriculum component for the period June 1 - August 24, 1976. August 24, 1976.
e22. Final report: curriculum component. June 1977.

Family Services

e23. Edgewood Independent School District Experimental Schools Program: family services center. February 1972.
e24. Quarterly report by family services center. March 8, 1973.
e25. Family services center summer program. May 1973.
e26. Quarterly report by family services center. June 11, 1973.
e27. Community interaction program: rationale and statement of purpose. 1974.
e28. Community interaction committee functional analysis. 1974.
e29. Problems in the community: community interaction survey. 1974.

e30. Advanced general education development: community interaction program. 1974.
e31. Plan de las escuelas de Edgewood, programa de interacción de la comunidad: declaración de propósito y racional. 1974.
e32. Community interaction program report. August 1974.
e33. Proposal to the Edgewood Independent School District for a community education college in the Edgewood School Plan. 1974.
e34. Presentation of the community interaction program to the Edgewood Independent School District school board members. September 16, 1974.
e35. Memorandum on community interaction program: B.A. program and up-to-date agreements. October 7, 1974.
e36. SAN ANTONIO EXPRESS-NEWS. Edgewood, OLL make dream of college education come true. December 15, 1974.
e37. Revision of the community interaction program. 1975.
e38. Adult performance level, competency based high school diploma program: first annual report. 1976.
e39. Validation of Texas programs, self evaluation, Edgewood Competency Based High School Diploma Program. 1977.

Handicapped (Supportive Instructional Services)

e40. Handicapped component quarterly report. November 1972.
e41. Handicapped component quarterly report. March 1973.
e42. Group leader's guide to the parent training program. 1973.
e43. Parents training manual. 1973.
e44. Supportive instruction (handicapped) component quarterly report. June 1973.

Internal Evaluation

e45. "Te Sales" test: Edgewood schools assessment of language in English and Spanish. February 1974.
e46. Final report: language dominance assessment. May 28, 1974.
e47. Report on ELDA - part II, Edgewood language assessment. January 1975.
e48. Classroom observations: a new tri-dimensional methodology for the assessment of the teaching-learning process. January 1975.
e49. Functional analysis and task analysis: 1974-1975. 1975.
e50. Preliminary report for the design of teachers in-service educational programs. July 1975.
e51. Teacher questionnaire on curriculum development and implementation. July 1975.

Staff Development

e52. Socio-cultural foundations course: Experimental Schools Project, Edgewood Independent School District: Fall-Winter 1972-1973. (University of Texas at Austin)
e53. Proposal for implementation of the staff development component. August 1972.
e54. Memorandum on staff development needs. September 1972.
e55. Five year plan: staff development component. September 19, 1972.
e56. Revised training plan for period October 1, 1973 - May 31, 1973: staff development component. October 1, 1972.

e57. Memorandum on consultants for MACOS. October 1972.

e58. Quarterly report: staff development component. November 22, 1972.

e59. Proposal for instructional staff common release time: staff development component. December 1972.

e60. Memorandum to Our Lady of the Lake College on postponement of planned training. December 18, 1972.

e61. Report to the Experimental Schools Project, Office of Education. February 21, 1973.

e62. Quarterly report: staff development component. March 8, 1973.

e63. Staff development proposal: staff development component. March 15, 1973.

e64. Summer training program. 1973. (pamphlet)

e65. Quarterly report: staff development component. June 11, 1973.

e66. Memorandum on activities: January 1 - June 30, 1974.

e67. Summer training plans: 1974. May 11, 1974.

e68. Summary of activities: fall 1974. December 8, 1974.

e69. Communications skills inservice program: spring 1975. January 24, 1975.

e70. Program outline: Janaury 1975 - June 1976 (second draft).

e71. Final report: staff development component. June 1977.

Related Materials

e72. Materials for the Bandera Edgewood School Plan retreat. November 14, 1973.

e73. Summary report and materials for functional and task analysis conference of the Edgewood School Plan. 1974. (University of Texas at San Antonio)

e74. Summary of meetings of the Experimental Schools Project staff: February 1972 - July 1973. (various)

e75. Minutes of the Edgewood School Plan staff meetings: August 1973 - June 1976. (various)

e76. LA ESPERANZA. House organ of the Edgewood School Plan, including Community Education and the Experimental Schools Project Newsletter. (diverse issues and articles)

e77. POL, GASTON P. Edgewood language dominance assessment: final report. May 1977.

e78. __________. Classroom management checklist: final report. May 1977.

e79. __________. ESP in-service workshops: final report. May 1977.

APPENDIX A:

A1: Training Participant Opinionnaire
A2: Community Education Teacher Interview Guide
A3: Community Education Student Interview Guide
A4: My Class Inventory
A5: Learning Environment Inventory
A6: Treatment Observation Form

A1: Training Participant Opinionnaire

Name ____

Course ____

Location ______________________ Date _________________

Teacher ____ Teacher Aide ____ Parent Aide ____ Parent _____

Community Member ____ Principal ____ ESP Staff ____

Student ____ Other (please specify) _____________

1. What is the subject of this training?

2. Please describe briefly how it is being taught?

3. How would you rate the way it is being taught?

   Very good __ good __ undecided __ poor __ very poor __

4. What is the purpose of the training?

5. How would you rate the utility of the material being taught to your job or relationship to schools?

   Very good __ good __ undecided __ poor __ very poor __

6. Please feel free to write any comment about this training that you feel should be noted.

A3: Community Education Student Interview Guide

Name ______________________________ Center ____________ Class _________

General class __ GED __ Advanced GED __

1. Why are you attending class at this particular center?

2. a. Have you ever attended classes at another center? Yes __ No __

   b. If yes, which one?

   c. Why did you change centers?

3. a. Are the class materials supplied to you when needed?
   (3) almost always __ (2) sometimes __ (1) almost never __

   b. Do the materials help you to learn?
   (3) almost always __ (2) sometimes __ (1) almost never __

   c. Do you receive enough materials for your classwork?
   (3) almost always __ (2) sometimes __ (1) almost never __

4. How would you rate the quality of the instruction you are receiving?
   (3) good __ (2) fair __ (1) poor __

5. What problems do you have in trying to study for the GED?

Appendix A4

DIRECTIONS

This is not a test. The questions inside are to find out what your class is like. Please answer all the questions.

Each sentence is meant to describe your class. If you agree with the sentence circle yes. If you don't agree with the sentence, circle no.

Example

Circle
Your
Answer

1. Most children in the class are good friends. Yes No

If you think that most children in the class are good friends, circle the yes like this:

1. Most children in the class are good friends. [✓ Yes] No

If you do not think that most children in the class are good friends, circle the no like this:

1. Most children in the class are good friends. Yes [✓ No]

Now turn the page and answer all the questions about your class.

	Circle Your Answer	
1. The pupils enjoy their schoolwork in my class.	Yes	No
2. Children are always fighting with each other.	Yes	No
3. The same people always do the best work in our class.	Yes	No
4. In our class the work is hard to do.	Yes	No
5. My best friends are in my class.	Yes	No
6. Some of the children in our class are mean.	Yes	No
7. Most pupils are pleased with the class.	Yes	No
8. Children often race to see who can finish first.	Yes	No
9. Many children in the class play together after school.	Yes	No
10. Most children can do their schoolwork without help.	Yes	No
11. Some pupils don't like the class.	Yes	No
12. Most children want their work to be better than their friend's work.	Yes	No
13. Many children in our class like to fight.	Yes	No
14. Only the smart people can do the work in our class.	Yes	No
15. In my class everybody is my friend.	Yes	No

Circle
Your
Answer

16. Most of the children in my class enjoy school. Yes No

17. Some pupils don't like other pupils. Yes No

18. Some pupils feel bad when they do not do as well as the others. Yes No

19. In my class I like to work with others. Yes No

20. In our class all the pupils know how to do their schoolwork. Yes No

21. Most children say the class is fun. Yes No

22. Some people in my class are not my friends. Yes No

23. Children have secrets with other children in the class. Yes No

24. Children often find their work hard. Yes No

25. Most children don't care who finishes first. Yes No

26. Some children don't like other children. Yes No

27. Some pupils are not happy in class. Yes No

28. All of the children know each other well. Yes No

29. Only the smart pupils can do their work. Yes No

30. Some pupils always try to do their work better than the others. Yes No

	Circle Your Answer	
31. Children seem to like the class.	Yes	No
32. Certain pupils always want to have their own way.	Yes	No
33. All pupils in my class are close friends.	Yes	No
34. Many pupils in our class say that school is easy.	Yes	No
35. In our class some pupils always want to do best.	Yes	No
36. Some of the pupils don't like the class.	Yes	No
37. Children in our class fight a lot.	Yes	No
38. All of the pupils in my class like one another.	Yes	No
39. Some pupils always do better than the rest of the class.	Yes	No
40. Schoolwork is hard to do.	Yes	No
41. Certain pupils don't like what other pupils do.	Yes	No
42. A few children in my class want to be first all of the time.	Yes	No
43. The class is fun.	Yes	No
44. Most of the pupils in my class know how to do their work.	Yes	No
45. Children in our class like each other as friends.	Yes	No

This instrument was developed at Harvard University by Gary J. Anderson and Herbert J. Walberg, May 1968. Revised, January 1969, by G.J.Anderson and Ronald E. Cayne, Faculty of Education, McGill University.

GUIDE TO THE USE OF THE MY CLASS INVENTORY SUBTEST SCORES

Each of the subtests has nine items and the subtest scores can range from 9 to 27, with a median range of 18 to 19. The desirable ranges are:

Satisfaction:	high, 19 or above
Friction:	low, below 18
Competitiveness:	moderate, around 18-19
Difficulty:	moderate, 15 to 20
Cohesiveness:	high, 19 or above

The only Texas means available are from an ESAA program in South Texas. Their means, for two different classes, were:

Subtest	Math Mean	Reading Mean
Satisfaction	21.6	11.8
Friction	19.8	24.3
Competitiveness	19.3	15.2
Difficulty	15.8	26.1
Cohesiveness	21.1	10.3

Notice that the math means, where the teachers were individualizing instruction, doing pupil counseling, and generally providing a good learning environment, were all within the appropriate ranges for the subtests. Reading, where these student support services were not being provided adequately, were low in Satisfaction and Cohesiveness, high in Friction and Difficulty.

Counselors, supervisors, principals, and teachers should be aware of the students' scores so they can take the appropriate actions: improving the environment, counseling with teachers and students on problem areas, working with individual students in both social and curricular activities to help their school adjustment.

Appendix A5

D. C. DEVELOPMENT ASSOCIATES, INC.
MANAGEMENT AND GOVERNMENTAL CONSULTANTS
MILAM BUILDING - SUITE 1400
SAN ANTONIO, TEXAS 78205
512/224-2319

LEARNING ENVIRONMENT INVENTORY

Name ______________________________________ No. ______________
Last First Middle

Grade ______________ School ______________ Teacher ______________

Male __ Female __ Mexican American __ Black __ Oriental __ Anglo and other __

Directions

The purpose of the questions in this booklet is to find out what your class is like. This is not a test. You are asked to give your honest, frank opinions about the class you are now attending.

In answering each question, go through the following steps:

1. Read the statement carefully.
2. Think about how well the statement describes the class you are now in.
3. If you strongly disagree with the statement, circle the number 1.

   If you just disagree, not strongly, circle number 2.

   If you agree, but not strongly, circle number 3.

   If you strongly agree with the statement, circle number 4.

This instrument is a revised version of the 1967 Learning Environment Inventory developed for research purposes at Harvard University by Dr. Herbert J. Walberg and Dr. Gary J. Anderson.

		Strongly disagree	Disagree	Agree	Strongly agree
1.	Members of the class do favours for one another.	1	2	3	4
2.	The books and equipment students need or want are easily available to them in the classroom.	1	2	3	4
3.	There are long periods during which the class does nothing.	1	2	3	4
4.	The class has students with many different interests.	1	2	3	4
5.	Certain students work only with their close friends.	1	2	3	4
6.	The students enjoy their class work.	1	2	3	4
7.	Students who break the rules are penalized.	1	2	3	4
8.	There is constant bickering among class members.	1	2	3	4
9.	The better students' questions are more sympathetically answered than those of the average students.	1	2	3	4
10.	The class knows exactly what it has to get done.	1	2	3	4
11.	Interests vary greatly within the group.	1	2	3	4
12.	A good collection of books and magazines is available in the classroom for students to use.	1	2	3	4
13.	The work of the class is difficult.	1	2	3	4
14.	Every member of the class enjoys the same privileges.	1	2	3	4
15.	Most students want their work to be better than their friends' work.	1	2	3	4

		Strongly disagree	Disagree	Agree	Strongly agree
16.	The class has rules to guide its activities.	1	2	3	4
17.	Personal dissatisfaction with the class is too small to be a problem.	1	2	3	4
18.	A student has the chance to get to know all other students in the class.	1	2	3	4
19.	The work of the class is frequently interrupted when some students have nothing to do.	1	2	3	4
20.	Students cooperate equally with all class members.	1	2	3	4
21.	Many students are dissatisfied with much that the class does.	1	2	3	4
22.	The better students are granted special privileges.	1	2	3	4
23.	The objectives of the class are not clearly recognized.	1	2	3	4
24.	Only the good students are given special projects.	1	2	3	4
25.	Class decisions tend to be made by all the students.	1	2	3	4
26.	The students would be proud to show the classroom to a visitor.	1	2	3	4
27.	The pace of the class is rushed.	1	2	3	4
28.	Some students refuse to mix with the rest of the class.	1	2	3	4
29.	Decisions affecting the class tend to be made democratically.	1	2	3	4
30.	Certain students have no respect for other students.	1	2	3	4

		Strongly disagree	Disagree	Agree	Strongly agree
31.	Some groups of students work together regardless of what the rest of the class is doing.	1	2	3	4
32.	Members of the class are personal friends.	1	2	3	4
33.	The class is well organized.	1	2	3	4
34.	Some students are interested in completely different things than other students.	1	2	3	4
35.	Certain students have more influence on the class than others.	1	2	3	4
36.	The room is bright and comfortable.	1	2	3	4
37.	Class members tend to pursue different kinds of problems.	1	2	3	4
38.	There is considerable dissatisfaction with the work of the class.	1	2	3	4
39.	Failure of the class would mean little to individual members.	1	2	3	4
40.	The class is disorganized.	1	2	3	4
41.	Students compete to see who can do the best work.	1	2	3	4
42.	Certain students impose their wishes on the whole class.	1	2	3	4
43.	A few of the class members always try to do better than the others.	1	2	3	4
44.	There are tensions among certain groups of students that tend to interfere with class activities.	1	2	3	4
45.	The class is well-organized and efficient.	1	2	3	4

		Strongly disagree	Disagree	Agree	Strongly agree
46.	Students are constantly challenged.	1	2	3	4
47.	Students feel left out unless they compete with their classmates.	1	2	3	4
48.	Students are asked to follow strict rules.	1	2	3	4
49.	The class is controlled by the actions of a few members who are favoured.	1	2	3	4
50.	Students don't care about the future of the class as a group.	1	2	3	4
51.	Each member of the class has as much influence as any other member.	1	2	3	4
52.	The members look forward to coming to class meetings.	1	2	3	4
53.	The subject studied requires no particular aptitude on the part of the students.	1	2	3	4
54.	Members of the class don't care what the class does.	1	2	3	4
55.	There are displays around the room.	1	2	3	4
56.	All students know each other very well.	1	2	3	4
57.	The classroom is too crowded.	1	2	3	4
58.	Students are not in close enough contact to develop likes or dislikes for one another.	1	2	3	4
59.	The class is rather informal and few rules are imposed.	1	2	3	4
60.	Students have little idea of what the class is attempting to accomplish.	1	2	3	4

		Strongly disagree	Disagree	Agree	Strongly agree
61.	There is a recognized right and wrong way of going about class activities.	1	2	3	4
62.	What the class does is determined by all the students.	1	2	3	4
63.	After the class, the students have a sense of satisfaction.	1	2	3	4
64.	Most students cooperate rather than compete with one another.	1	2	3	4
65.	The objectives of the class are specific.	1	2	3	4
66.	Students in the class tend to find the work hard to do.	1	2	3	4
67.	Each student knows the goals of the course.	1	2	3	4
68.	All classroom procedures are well-established.	1	2	3	4
69.	Certain students in the class are responsible for petty quarrels.	1	2	3	4
70.	Many class members are confused by what goes on in class.	1	2	3	4
71.	The class is made up of individuals who do not know each other well.	1	2	3	4
72.	The class divides its efforts among several purposes.	1	2	3	4
73.	The class has plenty of time to cover the prescribed amount of work.	1	2	3	4
74.	Students who have past histories of being discipline problems are discriminated against.	1	2	3	4
75.	Students do not have to hurry to finish their work.	1	2	3	4

		Strongly disagree	Disagree	Agree	Strongly agree
76.	Certain groups of friends tend to sit together.	1	2	3	4
77.	There is much competition in the class.	1	2	3	4
78.	The subject presentation is too elementary for many students.	1	2	3	4
79.	Students are well-satisfied with the work of the class.	1	2	3	4
80.	A few members of the class have much greater influence than the other members.	1	2	3	4
81.	There is a set of rules for the students to follow.	1	2	3	4
82.	Certain students don't like other students.	1	2	3	4
83.	The class realizes exactly how much work it has to do.	1	2	3	4
84.	Students share a common concern for the success of the class.	1	2	3	4
85.	There is little time for day-dreaming.	1	2	3	4
86.	The class is working toward many different goals.	1	2	3	4
87.	The class members feel rushed to finish their work.	1	2	3	4
88.	Certain students are considered uncooperative.	1	2	3	4
89.	Most students sincerely want the class to be a success.	1	2	3	4
90.	There is enough room for both individual and group work.	1	2	3	4

		Strongly disagree	Disagree	Agree	Strongly agree
91.	Each student knows the other members of the class by their first names.	1	2	3	4
92.	Failure of the class would mean nothing to most members.	1	2	3	4
93.	The class has difficulty keeping up with its assigned work.	1	2	3	4
94.	There is a great deal of confusion during class meetings.	1	2	3	4
95.	Different students vary a great deal regarding which aspect of the class they are interested in.	1	2	3	4
96.	Each student in the class has a clear idea of the class goals.	1	2	3	4
97.	Most students cooperate equally with other class members.	1	2	3	4
98.	Certain students are favoured more than the rest.	1	2	3	4
99.	Students have a great concern for the progress of the class.	1	2	3	4
100.	Certain students stick together in small groups.	1	2	3	4
101.	Most students consider the subject-matter easy.	1	2	3	4
102.	The course material is covered quickly.	1	2	3	4
103.	There is an undercurrent of feeling among students that tends to pull the class apart.	1	2	3	4
104.	Many students in the school would have difficulty doing the advanced work of the class.	1	2	3	4
105.	Students seldom compete with one another.	1	2	3	4

Appendix A6

D. C. DEVELOPMENT ASSOCIATES, INC.
MANAGEMENT AND GOVERNMENTAL CONSULTANTS
MILAM BUILDING - SUITE 1400
SAN ANTONIO, TEXAS 78205
512/224-2319

TREATMENT OBSERVATION FORM

Monitor ____________________

School ____ Date ________ Time _______

Teacher _______________________________________ Grade ___ Class __________

I. Teacher summary of what the class had done this year and is doing now.

A. Past:

B. Present:

II. Observed instructional activities (state precisely what the teacher and students did during the observation period):

A. Teacher:

B. Students:

III. What evidence of individualized and/or small group instruction was seen:

A. Individualized:

B. Small group:

IV. Describe the classroom climate:

V. Describe any unusual conditions or events observed if they were important to the learning process:

VII. Briefly describe any use of Spanish, San Antonio or other Texas experience, Mexican American, or Latin American context in the instruction:

A. Spanish:

B. San Antonio-Texas:

C. Mexican American:

D. Latin American:

VIII. Describe materials used:

IX: General Treatment Status:

APPENDIX B

Examples from ESP Produced/Adopted Curricular Materials

Example 1

[illegible]

[illegible] to different people. For a baby, security [illegible]ing of being held by his mother, by being fed and tended for on demand. For the little child, security may be a beloved teddy bear or an old blanket. For the teenager, security may be the transistor radio that is his constant companion. For the adult, security means something that is safe and can always be depended on; Therefore, job security is a job or occupation that is safe and can be depended on.

What gives you a feeling of security?

____

____

____

(1)

In order to enjoy comparative security in your chosen work, several factors must be weighed.

The first requisite* for job security is to make a wise choice in selecting your vocation. Next, prepare yourself for it--get the education, learn the trade, complete all requirements for the job. Security in a job is enhanced* immeasurably* if you are well prepared for your chosen work; if you are well suited to your chosen work; if it is work at which you can excel*; if it is work you can genuinely enjoy; and if you have chosen work in which you can feel a personal sense of accomplishment.

*Look in the glossary at the end of this lesson if you want [illegible] exp[illegible]

Objective: Given the requirements of an oral report the student will be able to make a presentation to the class on a current event.

Speaking in front of a group is never an easy thing to do. Every person experiences some sort of fear or "stage fright" before he speaks or performs.

What is stage fright? It is simply muscular tension, reinforce-ed by a certain chemical reaction in the body. You are tense because you are afraid -- don't be ashamed of this fear. Good speakers and actors don't get over this fear, they only learn to control it. It is the purpose of this assignment to help you understand and control stage fright. An oral report on a current events topic is a simple assignment to complete.

Now let's attempt to break the ice further. Oral reports are a very important part of communication. I am sure that all of you have been in a history class where the teacher assigned oral reports on current events topics. What was your general attitude toward this assignment?

---

(1)

If you were like most people you were probably very bored with the whole thing! No doubt you have sat and listened to a student give a not too exciting report on some historical person or event. The fact is that when people are not trained in presenting oral reports, they tend to be very dull.

Before you begin to plan your current events report, study the following points to remember when presenting it. If you follow these guidelines, you will come up with a speech that everyone can not only stay awake through, but enjoy.

1. Start with an interesting introductory sentence as you would in a speech. You must get our attention from the beginning or we won't listen to you.

2. State the news in your own words. If you read it, you are doing what we could have done at the breakfast table this morning.

3. Tell us why this news is important to us. Be specific. Will this item affect us, and, if so, how?

Quinta Fase: Lenguaje Escrito

Objetivo General: 1.0 El estudiante escribirá una composición usando el proceso de escribir paso a paso.

Objetivo	Actividad
	1.0.1 Discuta con los estudiantes el procedimiento necesario para aprender a montar en bicicleta. Escriba estos en la pizarra. Pida que individuos describan lo que les gusta hacer, siempre diciendo en orden lo que viene primero, segundo, etc. Pueden explicar otras cosas, usando el mismo proceso, como hacer tortillas, poner la mesa, hacer una llamada de larga distancia, etc.
	1.0.2 Escriban y cambien entre sí las instrucciones para actividades específicas.
	1.0.2.1 Hágase algún artículo siguiendo instrucciones.
	1.0.2.2 Un alumno puede dibujar un cuadro siguiendo instrucciones detalladas de otro alumno.
	1.0.2.3 Se puede dar instrucciones para reparar algo o cambiar una llanta.
	1.0.2.4 Siguiendo instrucciones, localice un punto en el mapa.
	1.0.2.5 Usando una receta o molde para coser para dar o recibir instrucciones.

Unit III
Objective 3

THE ODYSSEY

Objective: Be able to affirm or denounce a given assumption, on the basis of your analysis of Odysseus' behavior in coping with various obstacles.

While reading a really exciting story or viewing an exciting movie, have you ever found yourself in the "cheering section" rooting for the success of the hero or main character? No matter how much evil the hero has committed, the writer's skill shines through when the viewer or reader finds it impossible to refrain from becoming sympathetic toward the hero. So it is in the Odyssey.

Odysseus is seen as a human being caught up in many misfortunes that plague much of mankind today. There is a loss of followers, danger to his person, and numerous hostilities directed toward him by both his own men and the gods. Any man of lesser courage might have given up when faced with the hardships Odysseus endured. It is because of this courageous attitude and instances of physical strength that we direct sympathetic feelings toward such a person. Unconsciously, we are projecting ourselves into his character, thereby becoming the possessor of all qualities seen in him.

When we say that a person has "the will" to do something, what do we mean?

____
(1)

What situations have you been in that required "will power" more so than

physical strength? ______________________________

____
(2)

Using the introduction as a frame of reference, you will now read and complete Part II of the epic. Answer these questions following your reading:

What happened to the winds Aeolus gave Odysseus? ______________________
(3)

While Aeolus is happy to help Odysseus the first time, why does he fear to

give him aid the second time? ______________________________

____
(4)

Example 5

LEVEL 19

Numeration M19 (#)

		Suggested Activities
1.	The student identifies the place value of digits in whole numbers; write a whole number as the sum of the value of its digits; make or complete a place value chart for whole numbers (0 to 99, 999).	MSM5 p. 13 SMI p. 6 SAS
2.	The student will read or write numbers up to 100,000. Reads and writes in order, backward or forward starting anywhere between 0 and 100,000.	SAS
3.	The student rounds off numbers to the nearest 10, 100, or 1000.	MSM6 p. 105 MSM7 p. 16 SM7 p. 13-15

Money M19 ($)

1.	The student writes money values using words: "dollars" and "cents"; writes money values to $3.00 as a sum of dollars, dimes and pennies.	SAS
2.	The student identifies the change in coins which would be received in making purchases with values up to $1.00	SWM7 p. 100 SAS
3.	The student solves one step word problems involving addition or subtraction of money values to $1.00, using cent notation and decimal notation.	SWM7 p. 96 SAS

Time M19 (T)

1.	The student matches given time statements and clock faces.	SAS
2.	Given a completed clock face, the student writes down the correct time.	SAS
3.	When shown a completed clock face, the student writes the time either as "_____minutes after_____o'clock" or "_____minutes before_____o'clock".	MSM3 p. 150-151 SAS
4.	The student draws the hour and minute hand on a clock face to show a given time.	SAS

Example 6

Concept: 3.3 Community activities and occupations are influenced by local conditions.

Objectives	Activities or Suggestions
3.31 The student will describe the jobs in his community that are influenced by climate or weather.	
3.32 The student will list activities that are not dependent on weather.	
3.33 The student will identify activites or occupations which cannot be performed in mountainous areas.	
3.34 The student will identify activities that many people in his neighborhood enjoy.	
3.35 The student will identify occupations which could not be performed in his neighborhood.	

Lesson Plan for "Chiquita"

Behavioral Objective:

The children will be able to write a paragraph about particular learning experiences and be able to explain the experiences of other students by using the theory of conditioning or insight.

Concept:

The insight theory is one of the theories that helps explain learning.

Materials:

Text pp. 5-54
Movie E.I.S.D.; "Learning With Your Senses."

Procedure:

1. The students will read and discuss "Chiquita". Students should discu all the different things the girl thought through "insight".

2. See the movie "Learning With Your Senses".

3. The teacher can introduce a game the children are not familiar with. The students can spend some time examining the game, then the teacher can start a game of "20 Questions" to see if they can guess how you play the new game. They will do it through "insight".

4. The teacher will cover the students eyes, and will give them an objec they can touch, smell, etc. They will know what it is through "insig

5. The teacher will write a poem on the blackboard and will leave the last word on each line out. The students will try to guess what the word is through "insight".

Evaluation:

1. Given a list of responses the students will put them under the title that best describes them. "Inborn", "Insight", "Conditioned".

2. Each student will be given another student's paragraph describing a learning experience. He will read it and will explain if it is an example of learning through insight or through conditioning.

3. Each student will solve a puzzle, make a drawing and translate a sentence into Spanish. When they get through, they will explain if they used "insight, trial and error, or conditioning" to complete the task.

Example 8

Planes de Lección para Los dos extremos

Resultados en términos de conducta observable:

El niño podrá describir cómo tiene uno que adaptar a la falta o abunde agua.

Concepto:

Sin agua no podemos vivir, y no crecen las plantas.

Materiales:

1. Texto, pp. 86-95.
2. "Earth, Man's Home," pelicula de E.I.S.D.
3. The Netherlands, por W. de Groot Van Amden.
4. Folletos de viaje conseguidos en una agencia de viajes.
5. Mapa del mundo.
6. Carta mostrando la cantidad de lluvia que se necesita para varias cosechas.

Procedimiento:

1. Lean y discutan la historia.
2. Que los niños busquen fotos de tierra seca y de tierra mojada. Se les pueden encontrar en folletos de viaje o en revistas como National Geographic.
3. Que vean una película tratando de Holanda. Noten que ésta gente tiene que combatir la abundancia de agua para que no hunda su país.
4. Que vean una película tratando de Egipto. Noten que esta gente tiene que adaptarse a la falta de agua y tienen que regar la tierra.
5. Que busquen Holanda y Egipto en el mapa. Cuenten los ríos de cada país o comparen los colores que tienen en el mapa.
6. Que observen la carta mostrando la cantidad de lluvia que se necesita para varias cosechas . Los niños dirán cuales cosechas podría tener Egipto y cuales podría tener Holanda.
7. Discutan la conservación del agua. La maestra debe decir que tanta agua usa a diario cada uno de los ciudadanos de los Estados Unidos.
8. Discutan "Hydroponics" como una posibilidad en el futuro.
9. Discutan "plankton" y como es posible que un día hallaremos nuestra comida en el mar, no en la tierra.

Evaluación:

1. El niño recogerá fotos de tierra mojada y tierra seca.
2. El niño escribirá un párrafo describiendo cómo la cantidad de lluvia de un área afecta las cosechas y las vidas de los habitantes.
3. El niño describirá cómo se tiene que adaptar la gente en relación a la falta o abundancia de agua.
4. El niño dirá cómo la gente tendrá que cambiar para conservar agua.

Example 9

DRAFT

Unit Objective 1: With 90% accuracy and when asked to do so for final evaluation, the student will be able to locate on a world map, the continents and other regions of importance. (This may be done individually or in small groups.)

Objective 1.1: The learner will gain the skill of using a globe.

Name of Activity: "Globe"

Related Area:

Directions: You are to make a colored globe using a balloon.

Materials: Balloon, duplicating paper, tempera poster paint, glue, scissors, maps, work sheet

1. Blow-up your balloon to appropriate size. Make a knot and tie a 12-inch long string to the knot.
2. Cut several strips of paper and glue them to your balloon until it is fully covered with paper.
3. Let dry for one day.
4. Color the globe blue. Let dry.
5. From your map work sheet, color your continents describing the soil and vegetation according to map on page 3 of your text. Use glue to make mountain ranges.
6. Cut your continents out and glue them on your globe. Let dry.

Student's Remarks:

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Unit Objective 1: With 90% accuracy and when asked to do so for final evaluation, the student will be able to locate on a world map, the continents and other regions of importance. (This may be done individually or in small groups.)

Objective #1.2: After reading the definition provided, the student will be able to find and circle the word in the puzzle.

Name of Activity: "Word Sleuth"

Related Area:

Directions: First read the definition, then find and circle the word in the puzzle that is being defined.

Materials: Puzzle and definition provided on this and the following sheet.

1. The average weather of a place or region.
2. Another word for plants.
3. Another word for rain.
4. The place where man's earliest civilizations first developed.
5. The thing that plants grow on.
6. The loss of soil by wind or rain.
7. The shape or lay of the land.
8. Another word for horsepower.
9. A place where only cactus grow.
10. An area where rainfall is extremely heavy.
11. The place where Hopi Indians live.
12. The lines that go up and down or vertically on a map,
13. The lines that go from side to side or horizontally on a map.
14. The horizontal imaginary line that goes around the world at the middle.
15. The horizontal imaginary line that goes around the world where the tropics start in the Northern Hemisphere.

Example 10

¿Qué haremos?

Gloria was the oldest child of the family. She was respected by her parents the Garcias' and she loved her little sisters very much, Tomas, Linda and Louis. Gloria was ten years old, Tomas was eight, Linda six and Louis was four.

One day Gloria arrived from school with her brothers and sister and was surprised to see her mother sitting in the kitchen crying. They asked her, "What's wrong Mommy?" At last she replied, "Your father has suffered an accident and he is very sick in the hospital. Now Gloria ,you go prepare supper so we can go to the hospital.

They all arrived at the hospital with get well cards , but the father was suffering so much that he was in a bad mood. He wanted to speak to the family. "Children, said Mr. Garcia, we have to discuss our problem. I have to stay here one month. The thing is, I will not be able to work for a long time. You will have to help mother. There are things at the house that will be your responsibility. now, as mother is going to work, I know all will go well if you accept your responsibilities."

Mrs. Garcia started to work the next day. When the children arrived at the house they found a note saying that their mother would return at six. Gloria told the other children with a firm voice, "I am going to prepare dinner, you Tomas have to throw out the trash and make found in various kinds of food on display and sale in stores and the requirements that are placed on these by the Food and Drug Administration.

12.3 investigate the consequences of choice in personal dietary habits; determine the extent to which taste rather than wisdom is used in the determination of diets among adolescents; predict some likely consequences of this continuing behavior.

12.4 investigate the impending world starvation crisis; try to determine from news stories, etc., what the world situation is in regard to food supply; look for unique dietary problems facing countries in various parts of the world.

12.5 investigate the effects of various methods of preparation on the quality of food products; determine which types of foods should be eaten raw and which should be cooked and why..

Problem Area 13.- LIKE FATHER, LIKE SON?: An investigation of reproduction and patterns of inheritance to determine what characteristics are transmitted from generation to generation of a family; characterizing the process of reproduction as an extension of life material from one generation to another; identifying life span as a problem of species survival making reproductive behavior and planned learning experiences biological necessities.

Students will:

13.1 investigate reproductive mechanisms in a variety of living things; determine that each such mechanism renews and extends the living material through a new cycle of time (life-span); study the forms in which these extensions of living material exist and the usefulness of these forms to survival of the species.

13.2 prepare demonstrations to show that offspring resemble the parent organism and that variation in certain characteristics of offspring are derived from parental characteristics spanning more than one generation.

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Asociativo

Sumando tres numerales, se pueden sumar primeramente los primeros o los últimos dos números sin que cambie el resultado final.

Tarjetas:
(2+1)+2=
3+2=5
2+(1+2)=
2+3=5

Inversar

Restar es la operación inversa de sumar cuando se usan los mismos numerales. Esta operación se usa para encontrar el agregado que falta.

2 + $\boxed{1}$ = 3

3 - 2 = $\boxed{1}$

3 + $\boxed{}$ = 5

5 - 3 = $\boxed{2}$

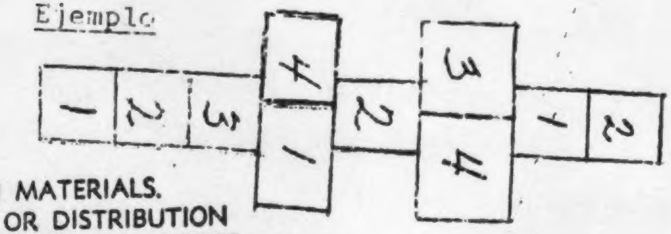
(Nota a la maestra: Los procesos se deben ensenar primero usando objetos que los niños puedan manipular antes de escribir los numerales. Después se pueden escribir los numerales que representen el proceso).

3. Aplicación

a. Usando los procesos matemáticos por medio de juegos.

Con el juego "Bebeleche" se pueden hacer problemas en sumar:

Ejemplo



Marcador
cartones
pegados con
"maskin tape"
en el suelo o
tiza para
marcar el cemento

Example 12

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b. Dramatízense los preparativos de una familia para un día de campo. (Para otras actividades como esta véase número A-1-c.)

c. Organízense experiencias reales como las que aparecen en número A-1-c.

d. Recórtense ilustraciones de revistas que representen diferentes formas de diversión para hacer un librito.

e. Preséntese una variedad que consista de los bailes y los juegos sugeridos en esta unidad. Hágase el vestuario apropiado para cada juego o baile.

f. Dibújese la diversión familiar favorita por cada estudiante.

B. Actividades para enseñar las destrezas de lectura.

1. Estructura del lenguaje

a. Hágase un cartel de experiencias sobre una de las actividades de recreación. Subráyense sustantivos y apelativos en el cartel. Discútase la diferencia entre éstos.

Lengua Española
Almendros, 23,24
60-63.

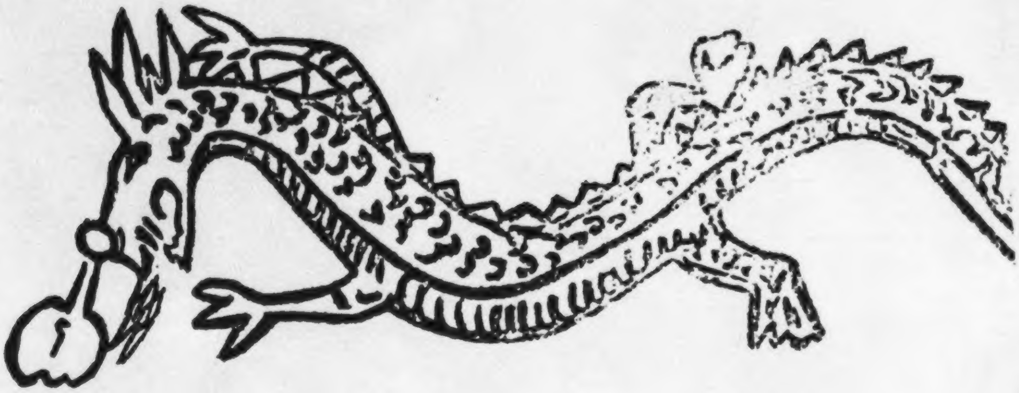
ABC, Almendros,
25-30
Marcador
Cartón

b. Hágase un tipo de "pocket chart" en el cual haya un espacio para una cosa que represente el sujeto o el objeto de una frase. Hágase una colección de objetos de los cuales el estudiante deberá reconocer y escojer los que completen un frase.

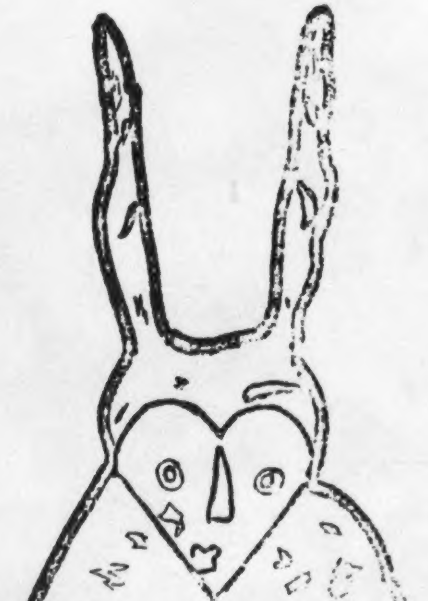
EDGEWOOD SCHOOL PLAN MATERIALS.
NOT [illegible] CTION OR DISTRIBUTION
W[illegible] FROM E. S. P. OFFICE.
[illegible] R E. S. P. USE ONLY.

Example 14

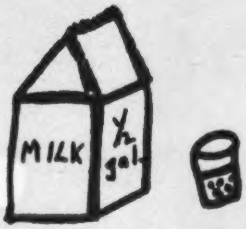
CHINESE DRAGON(fantasy [illegible]

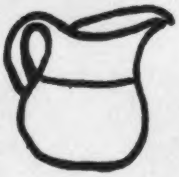


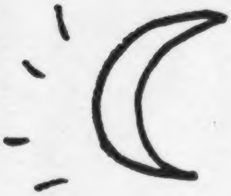
HUMANIZED ANIMAL TRICKSTER OF AFRICAN [illegible]

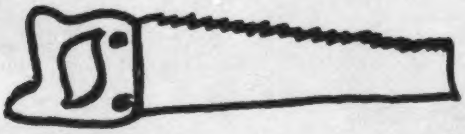


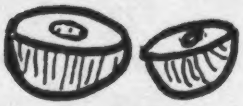
Example 15



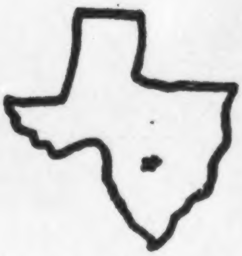


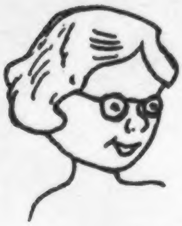


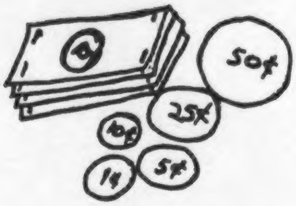


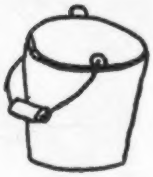


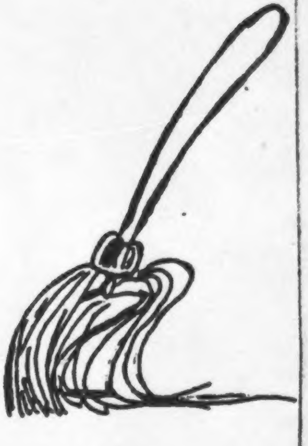
Circle those pictures that
begin with the same sound
as maintenance man.











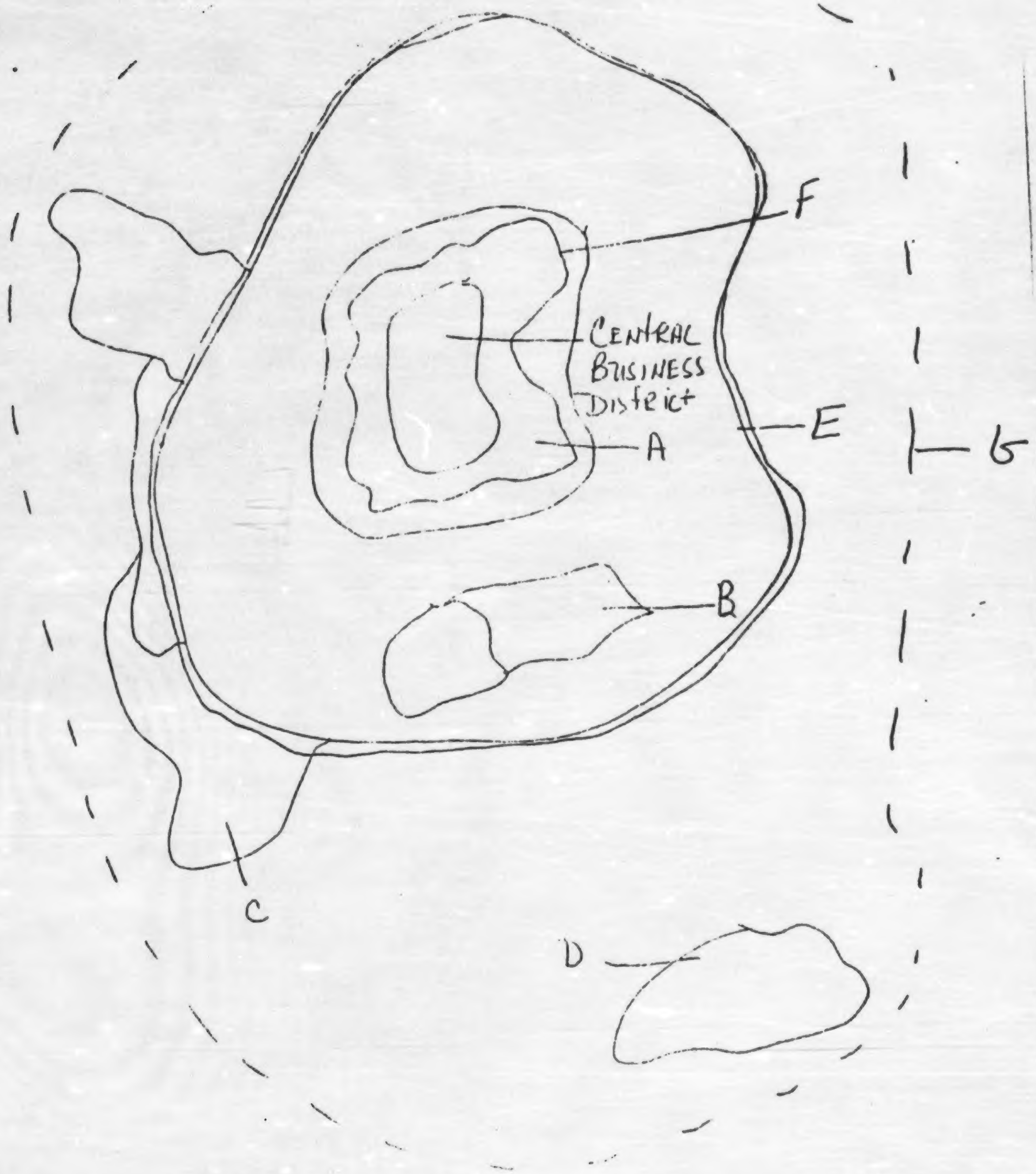
Example 16

WORD SLEUTH PUZZLE

M	N	X	P	T	J	T	R	O	P	I	C	O	F	C	A	P	I	C	O	r	N	a
O	P	C	i	N	M	G	Z	U	B	D	R	V	W	C	P	I	C	O	B	D	Z	W
T	Z	P	R	P	I	c	a	C	O	r	T	O	P	O	G	R	A	P	h	y	u	Z
R	C	a	N	c	e	r	D	e	S	S	E	R	R	T	B	M	D	Q	V	W	M	B
O	S	O	L	S	U	P	R	V	A	L	L	E	Y	S	B	A	V	L	L	E	Y	L
D	E	R	S	I	O	N	L	A	T	I	A	U	D	E	N	G	R	Y	C	L	I	O
I	M	D	P	U	C	A	N	c	e	r	T	r	o	p	P	I	C	E	N	e	G	N
C	E	Q	U	R	B	R	Z	L	D	V	I	Z	B	D	S	O	I	L	S	Q	R	G
O	U	N	Z	A	E	B	A	F	E	Q	T	S	U	V	W	C	A	U	V	Y	D	T
F	M	B	D	C	D	C	E	G	H	R	U	T	I	Z	B	D	Q	W	X	Z	M	I
C	V	e	G	E	I	T	I	A	b	I	D	E	Y	P	u	e	b	U	D	Z	M	T
A	D	e	S	P	S	E	R	P	T	C	E	P	m	C	L	I	M	A	T	E	W	U
N	X	W	O	V	U	R	Q	P	I	O	N	M	X	W	V	U	T	S	R	N	U	D
C	M	R	N	O	B	R	D	U	V	T	M	B	E	Q	u	d	D	r	U	E	V	E
E	T	K	J	I	H	G	F	E	S	D	A	C	B	A	C	D	B	N	M	R	X	W
R	L	M	U	P	O	N	M	L	K	J	I	T	H	E	G	F	R	Q	P	G	O	N
T	U	N	D	E	Q	U	A	T	o	r	D	N	I	U	T	O	N	M	U	Y	D	C
N	M	D	F	E	G	R	C	D	B	U	E	b	I	O	I	O	N	R	E	N	i	M
D	B	D	E	S	E	R	T	R	Z	y	X	W	V	Q	N	P	N	R	D	M	B	Q
O	N	O	Z	N	O	L	U	L	L	E	i	N	O	Z	U	R	C	S	m	r	A	H
N	Z	O	I	L	I	I	N	E	I	N	O	A	Z	P	U	E	b	I	O	r	A	G
O	C	M	R	I	G	H	d	R	m	S	C	R	U	Z	K	O	d	a	K	I	N	S
M	R	Z	W	X	W	V	R	U	C	I	T	A	E	R	O	S	I	O	N	M	A	T
N	O	V	E	G	E	T	A	T	I	O	N	P	Q	U	V	W	X	W	Z	M	N	O

Student's Remarks:

Example 17


F
CENTRAL
BUSINESS
District
A
E
G
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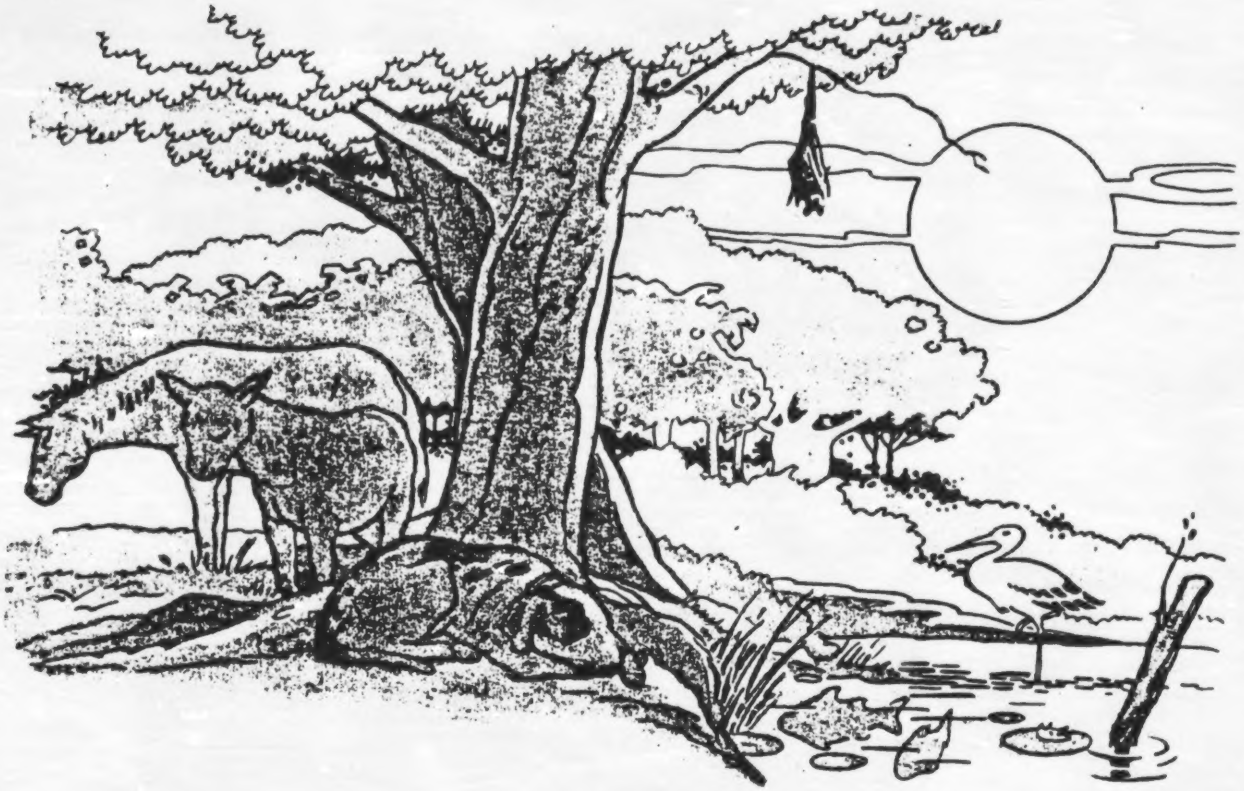
D



COMO DUERMEN LOS ANIMALES

La cigüeña duerme apoyada en una pata

El murciélago duerme cabeza abajo.

El caballo y el burro duermen de pie.

Los burros a veces se acuestan para dormir.

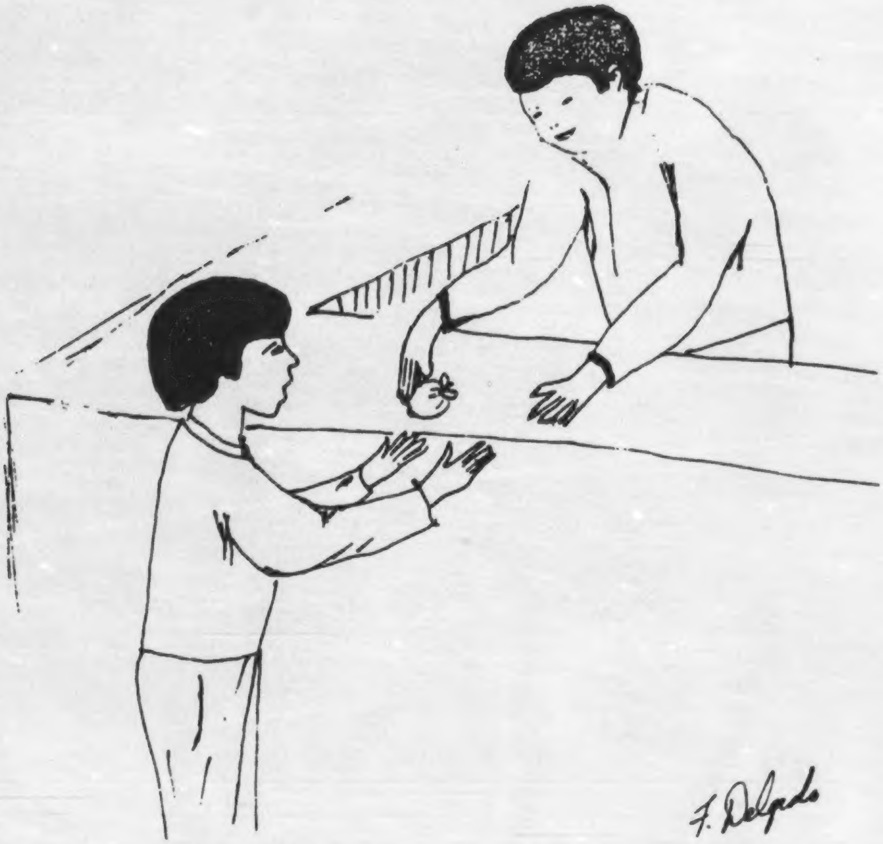
Los peces se quedan quietos en el agua, y duermen.

Algunos animales sueñan cuando duermen.

Los perros de caza parece que sueñan que están cazando.

Haz una raya debajo de los nombres de los animales.

Example 19



-Me gusta mucho ir con ellos a comprar las provisiones- le dije a Joe, -pero lo que no me gusta de esta tienda es que aquí no dan pilón. Cuando me mandan a mí solo a la hielería o a la tiendita de don Pablo, allí siempre me dan pilón. También me gusta más ir ahí porque siempre hablan más conmigo.

Hector Valencia

Example 20

On the map of San Antonio "1" locate the various suburbs and identify which ones are in the various areas of town.

(14)
a.) N. ______________________

b.) W. ______________________

c.) S. ______________________

d.) NW ____________________

e.) NE ____________________

f.) SW ____________________

A suburb is not part of the legal city. It has its own government. That means that a suburb is usually a (15) ______________________ governing town. A suburb is self-governing but is tied to the city economically.

Give a short definition of the word economic. (16) ______________

____

Why do you think people would want to live in a suburb? (17) ________

____

What do the suburbs offer the city? (18) ____________________

____

What does the city offer the suburb? (19) ___________________

____

How is a suburb dependent on a city? Can you name and explain 3 ways in which suburbs depend on cities.

(20) ____

____

(21) ____

____

(22) ____

____

Now turn in your text to page 5 in Urban America and read it before continuing.

Example 21

DRAFT

Unit 3

Pre-Test

Directions: Complete the correct form of the given verb in the sentences below.

1. The trees______swaying in the wind.(is,are)
2. The leaves______fallen to the ground.(has,have)
3. We______win every game this season.(do,did)
4. ______you see the sunset last evening?(Did,Do)
5. ______you told Mother about it?(Has, Have)
6. George______good work in science.(do,does)
7. She______always giving help to the needy.(are,is)
8. She______a wonderful person.(are,is)
9. I______not read The Exorcist until last week.(has,have)
10. ______you have time to help me?(do,does)
11. ______he been ill long?(Have,Has)
12. What ______ you been doing?(have,has)
13. ______down, Fido! (Lay, Lie)
14. Fernando was______a trap.(setting,sitting)
15. Alejandro ________there gasping for breath.(laid,lay)
16. In English poetry there____many references to flowers.(is,are)
17. Some of the flowers_____very odd names.(have,has)
18. Two yellow flowers______the daffodil and the jonquil.(is,are)
19. There_______many of these flowers in my garden.(is,are)
20. The old man______in the shade all day.(lay,laid)

DESARROLLO DE VOCABULARIO EN CONTEXTO

Objetivo: El estudiante reconocerá vocabulario presentado y usado en contexto.

MATERIALES

ABC, Almendros, 1-8, 11-24.

Lengua Española, Díaz 13-22, 31-36, 46-48, 72-73, 56, 57, 59, 60-64, 69, 85-86, 74.

Libro Primero, Anaya 11-14.

Lengua Española, Almendros, 33-36, 43-44, 47-48, 53, 54, 64.

Camino de la escuela, Cuaderno de trabajo, Laidlaw, 6-7, 22, 26, 31, 36, 46-48, 58, 83.

Nuestros Amigos, Cuaderno de trabajo, Laidlaw, 49, 14, 30, 39, 51, 63, 66, 74, 83, 93-96.

Libro de ejercicios, Mex. 3-4, 6, 11-12, 16-17, 19, 22, 27, 30, 33, 35-36, 39-42, 44, 47-48, 51, 53-54, 74.

cartón
marcador
"sentence strips"
tijeras

Preparación de Materiales

1. Háganse tarjetas relámpago del vocabulario escogido de alguno de los materiales (páginas) en referencia.

2. Háganse oraciones sensillas en "sentence strips."

Es un ______________.

Es una ______________.

Mira el ______________.

Miro la ______________.

3. Hágase un cartel de ilustraciones y palabras cuyos nombres rimen.

ejemplo:

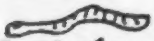
luz

gato

naríz

crúz

pato


lumbríz

El Que Poco Hace Poco Gana

"Come on boys! Everyone gather around! Let's go!"

Friday finally had arrived, the day all the boy scouts thought would never come. Today they were all going on the long awaited overnite campout with the fulfillment of this trip the boys would no longer be Tenderfoots, but second class scouts!

"O.K., boys" the scoutmaster began, "Let's see if everyone brought their supplies. Who brought the ice chests?" Two hands went up. "Who brought the ax?" Another hand went up. The scoutmaster continued until all supplies were accounted for. The scouts were off!

Two hours later they arrived at the camp grounds. Everyone was so excited, they all jumped from the cars and immediately began scattering in all directions - north, south, east and west.

But before anyone had gotten too far they were stopped by the voice of the scoutmaster. "OK boys, back here immediately! We've got work to do before we can play." "OH H H H," groaned all 18 scouts. "Yuk, work!" "Come on now, you'll be very happy later this evening that all the work has been done. Let's get into groups of three and get the gear set up!"

Three groups of boys were asked to set up one tent each. First, the stakes were driven into the ground, carefully so as not to bang some fingers in the process. Then the tents were unrolled, poles were put in place, strings were tied to the stakes and in minutes, six of the boys were looking proudly at their finished task.

Two boys made clearings, two boys gathered twigs and dried leaves, and two hunted rocks to be put around the fuel. Within 15 minutes four open pits were ready to cook on.

Another very important job was given to those scouts left without jobs. It was the backbreaking job of cutting wood for the big campfire. This last job took a little longer to do and many boys who finished their jobs quickly, offered a helping hand.

Draw a circle around the words that begin with "th".

will
with
that

you
pig
the

take
the
are

can
that
my

things
like
little

oh
not
things

Draw a circle around words that being with "p".

pan
peanut
indian

queen
parrot
pig

question
popsicle
top

Related Vocabulary

Persons		Places	Things
baby	nurse	park	book
father	football player	neighborhood	pencil
man		beach	rock
mother		movies	chair
woman		downtown	table
lady		country	tablet
girl		San Antonio	crayons
boy		playground	ball
workers		swimming pool	bat
policeman		school	toy
fireman		home	shoes
doctor ... etc.		church ... etc.	clothes ... etc.[51]

Example 25

READING/WRITING

READING

SKILLS:
- Fonetica: grupo consonante
- Claves en contexto
- Asociando palabras con ideas, palabras y retratos
- Comprensión: recordando detalles
- Secuencia

WRITING

SKILLS:
- Números y letras

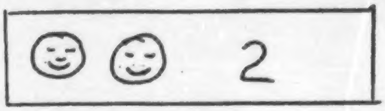
SUGGESTED ACTIVITIES:

C.A./Math

Escriban una grafica o lista de cosas que pienzan los niños que son buenas o que son malas. Marquen la letra "b" y "m" en cada palabra en la lista.

Hagan conjuntos de las caras tristes y felices que recorten de revistas y escriban el número apropiado.

ILUSTRACION:



Haga tarjetas relámpago de palabras en el vocabulario relatado (vea las actividades adicionales). Pueden hacer conjuntos de todas las palabras que empiezan con una letra.

Escriban un cuento (gráfica de experiencias) de "como me siento cuando estoy contento."

Puede desarrollarse el grupo consonante "tr" nombrando otras palabras que empiezan como triste (tres, trompo, tronco, tractor, tren, trabajador, etc.)

Nota: Es temprano para introducir "TR" pero oralmente se puede discutir.

MATERIALS

Special Materials
- Revistas
- Cartel
- Marcadores
- Tarjetas relámpago

Textbooks/References